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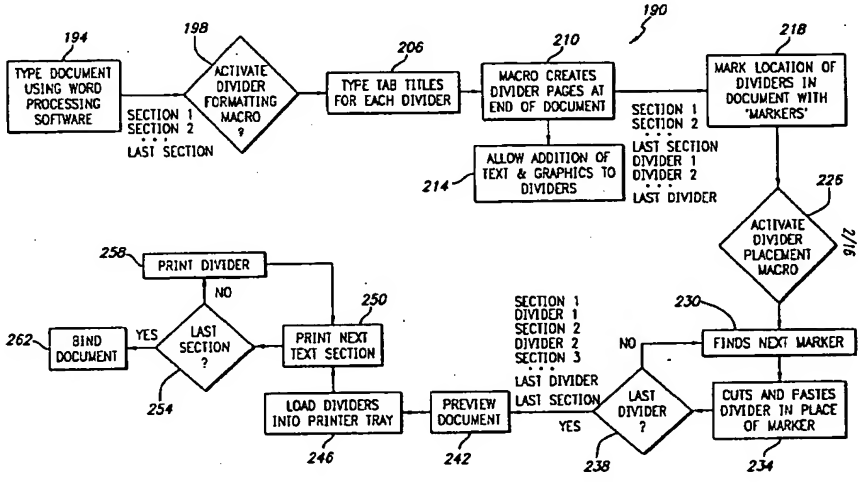
(54) Title: SYSTEM FOR AUTOMATICALLY PRINTING AND INSERTING INDEX DIVIDERS INTO ONE OR MORE DOCUMENTS




(57) Abstract: The user on his computer selects and designs the tab dividers including the text to be printed on the tabs thereof (206). The user indicates where each of the dividers is to be located in an existing electronic document (or in a series of to-be-combined documents) to thereby form an electronic divided document (218). At the desired time, the user clicks the "print" button and a printer operatively connected to the computer is thereby instructed to automatically print (250) the dividers from a printer first feed tray and to print the document(s) from pages in a printer second feed tray and to output the final collated divided document (262), corresponding to the electronic divided document. Advantageously, no subsequent manual collating step is need.

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# SYSTEM FOR AUTOMATICALLY PRINTING AND INSERTING INDEX DIVIDERS INTO ONE OR MORE DOCUMENTS

## Background of the Invention

Software is commercially available which allows a user to design on the screen of his computer the tab titles and other text or graphics to be printed on tab dividers and then to direct a printer connected to his computer to print out the custom-designed tab dividers.

An example of a commercially successful tab divider custom printing product is the DIRECT PRINT Custom Dividers available from the Avery Dennison Corporation of Pasadena, California, and the eight pages of instructions (RM4335, copyright 1999) for the Starter Set of this product are hereby incorporated by reference. Briefly, the user selects on-screen the number of tabs to be customized. The user's word processing program is used to change the font style or size of the tab titles. The DIRECT PRINT (CD ROM) software automatically separates the tabs into standard five or eight page documents, and places the user in the word processing program. The word processing program allows the user to design the divider pages with text and graphics. The user is able to view the divider pages before printing.

The divider pages are loaded into the printer, and the user via the software instructs the printer to start the printing process. The divider pages preferably have a folded-over binding edge and a peel-off strip along the tab edge. The constructions, operations and purposes of both are explained in the U.S. patents 5,743,566 (Hunter et al.) and 5,792,297 (Hunter et al.) (See also 5,836,710 (Owen)). (The entire contents of these patents and all other patents and other publications mentioned anywhere in this disclosure are hereby incorporated by reference.)

After the divider pages have been printed, the binding edges unfolded and the strips peeled off, the printed divider

pages are manually inserted at the desired locations in the basic document (or between the documents) to form a single divided document with printed tab dividers. Then, after the divided document has been manually collated, it can be bound as desired by the user. The above-described divider page collation or insertion step is tedious, subject to error and where there are many documents to be assembled, very time consuming and labor intensive.

## Summary of the Invention

The present invention eliminates the manual collation step described above and further assists and speeds in the design and printing of the custom-designed divider sheets and more particularly the entire custom divided document. The software of the invention allows the user to custom design the printing on the tabs of the dividers and the text and graphics, if any, on the body of the tab dividers. It further and uniquely allows the user to indicate where each of the tab dividers is to be positioned in the document (or documents), that is, between which pages or portions of a single document and/or between documents to be combined. This can be done by the user inserting (electronic) markers at the desired locations through out the document(s) and then replacing the markers with the corresponding tab dividers. Instead of the "marker" system, the dividers can be individually and sequentially inserted as the user indicates their desired location in the document.

A custom-design divided electronic document is thereby created in the user's personal computer. With (blank) tab dividers in one tray of the printer and paper pages in the other, the user clicks on the "Print" button on his computer screen (or uses another prompt provided by the software). The printer then via the printer driver is directed to print the tab dividers from the divider tray and the document pages from

the paper page tray in the proper order and to output a collated printed divided document which corresponds to the divided electronic document.

An alternative or variation of this system has the software identify "headings" in the (word processing) document. The headings then provide the titles to be printed on the tabs of the dividers or provide preliminary titles which the user can modify (on-screen) as desired, for example to shorten them, make them more descriptive or more appropriate, or even delete them (if a tab divider is not to be provided for that heading or if the "heading" was incorrectly identified as such). The titles can then be automatically sized (by the software) to fit on the tabs. The identified headings can also automatically identify where the tab dividers are to be positioned in the document and to form the electronic divided document with the tab dividers so positioned and the document properly page formatted to accommodate the dividers.

Another aspect of this (method, system, software, etc.) invention is that the user can preview the entire electronic divided document (including the basic document, the custom printed tab dividers and the placement of the dividers within the document) on his computer screen, and make whatever changes he wants before going to the time and expense of printing the electronic divided document.

A further embodiment allows the user to create or to compile previously-created files from the same or different software applications to form a new document. The user then creates and formats the tab dividers using the DIRECT PRINT or similar software. The user activates a new macro, which has the user indicate which file is to be inserted between adjacent dividers to form the electronic divided document. The printer then upon a user prompt pulls dividers from one tray and paper pages from another. The files are printed

using the corresponding software and the tab dividers are printed and the divided document is output without any additional interaction by the user. Alternatively, preprinted dividers can be fed into the printer to be fed through without additional printing thereon and output in the appropriate location in the final printed divided document.

The program or software of this invention can be loaded onto the user's computer by any suitable means such as by CD-ROM, floppy disk or over the Internet. Alternatively, the macro can be pre-loaded onto another software application, and for example, can be included on future versions of MS WORD. Downloading from the Internet can include the user visiting the appropriate website. One of the pages of the website has a "hot link" to the file to be downloaded (the macro files). The user clicks on this link, follows the on-screen directions and identifies a location for the file to be stored on the user's hard drive (or other storage device). The file(s) are then downloaded onto the user's computer. The software file(s) may (or may not) subsequently need to be installed (uncompressed) onto the hard drive.

Other objects and advantages of the present invention will become more apparent to those persons having ordinary skill in the art to which the present invention pertains from the foregoing description taken in conjunction with the accompanying drawings.

## Brief Description of the Drawings

FIG. 1 is a block diagram of a system of the present invention.

FIG. 2 is a plan view of a divider sheet assembly usable in the system of FIG. 1.

FIG. 3 is a flow chart of an embodiment of the present invention.

FIG. 4 is a first dialog box usable in the embodiment of FIG. 3.

FIG. 5 is a second dialog box usable in the embodiment of FIG. 3.

FIGS. 6-12 are sequential screen shots from another embodiment of the present invention.

FIG. 13 is a dialog box usable in yet another embodiment of the present invention.

FIG. 14 is a box showing a graphical icon alternative similar to FIG. 13.

FIG. 15 is a flow chart of a still further embodiment of the present invention.

FIG. 16 is a flow chart of a preferred embodiment of the present invention.

FIGS. 17-24 are sequential screen sheets usable in the preferred embodiment of FIG. 16.

## Detailed Description of Preferred Embodiments of the Invention

A number of different systems, methods and embodiments of the present invention are disclosed herein and described herebelow with reference to the accompanying drawings. Referring to FIG. 1, a basic system of the present invention is illustrated generally at 100. System 100 includes a personal computer assembly shown generally at 104, which is operatively connected to a printer assembly shown generally at 108. The printer assembly 108 includes a printer 112 having two infeed trays 116, 120 and an output tray 124.

The first infeed tray 116 is loaded with tab divider assemblies 128 such as that shown in FIG. 2, which include a tab divider sheet 132 having a body portion 134, a tab 136 extending out from a side (or end) edge of the body portion, and a peel-off strip 140. The peel-off strip 140 is adhered with releasable adhesive to a backside of the body portion, extending out from the edge, and to or a slight distance past

the outer edge of the tab 136. The strip 140 "squares" off the tab edge of the tab divider sheet 132, thereby improving feeding of the assembly 128 into and through the printer 112, as described in the above-referenced patents. The assembly 128 has preferred dimensions 144, 148 of eleven and nine inches, respectively. The tabs can also be the smaller "Hidden Tab" construction. The divider sheet 132 has a binding edge 152, which may or may not be folded over. The dividers preferably include the peel-off strips, but the present invention does not require them. And this is especially true for future printers or digital copiers which may not need peel-off strips (or the like) to signal the edge of the sheet.

The paper infeed tray 120 is filled with a stack of paper, for example 8 ½ by eleven-inch bond or other paper on which the document is to be printed. And the final collated printed document is output into the output tray 124 of the printer.

Referring back to FIG. 1, the personal computer assembly 104 includes a computer (having a monitor) 160 and a user input system 164 in through which the user inputs his commands to the system 100. The input system 164 can be a keyboard, a mouse, a voice-activated system or any other system known to those skilled in the art. One or more electronic files 168 previously created or created by the user as part of this invention are stored in the computer. They, for example, can be simple word processing documents. The software of the present invention can be loaded onto the computer by any suitable mechanism or medium 172. Examples thereof include floppy disks, CD ROMs or over the Internet.

The software allows the user to design on the computer 160 by inputting instructions therein using the user input system 164 the collated printed divided document by creating a corresponding electronic version thereof. When the user has

completed designing the divided electronic document, he instructs via the printer driver 176 of the personal computer assembly 104 the printer 112 to print on the paper sheets and the tabbed divider assemblies 128 from their respective infeed trays 120, 116 the collated printed divided document and to output it in the output tray 124.

A number of different embodiments or variations of this invention will now be described. Flow charts and/or screen shots are provided for some of them to further the explanations thereof.

According to a basic embodiment, the software can be a macro or template that works in concert with today's word processing programs. The AVERY WIZARD software is an example of how such a macro could interact with the parent software. A user types a document as he normally would do in word processing software (or the document could have previously been prepared by him or by another). Once the document has been completed, the user runs the macro to format the divider pages. The macro prompts the user for information such as the number of sections in the document, information to print on the tabs, graphics or text to print on the page, and the orientation of the printing (portrait or landscape). The macro creates "pages" at the end of the document, which are formatted as divider pages (128) (full nine by eleven inch size with tab indicia formatted sideways), as designed through the macro. Once the dividers have been designed, the user goes through the document and marks the locations where the dividers should be inserted by using a predetermined marker, which would not normally be used in a typed document, such as three ampersands on a line by themselves. The markers can be graphic icons instead of (or in addition to) text characters. These codes define markings from which the software can locate the proper places for the dividers.

The user then activates the macro, either by selecting it from the tool bars, or by using a keyboard command. The macro automatically finds each of the coded lines and cuts and pastes the appropriate designed divider page into the proper locations. An electronic document having intermingled body text and divider pages is thereby created.

The user loads the printer with 8-1/2 inch by eleven inch (or legal sized) paper into the main cassette tray 120 of the (laser) printer assembly 108. Tabbed divider sheet assemblies 128 (nine inch by eleven-inch divider sheets with peel-off strips 140) are loaded in another tray 116 of the printer 112 -- a tray which can feed larger sheets. When the document is printed, the formatting of the pages directs the word processing software to feed the appropriate media from the appropriate tray, e.g., the bond paper from the cassette tray 112 and the dividers from the other tray 116. A completed printed document with custom printed dividers automatically collated into the desired locations in the document is thereby output in the output tray 124 of the printer. The document is immediately ready for binding into a three ring binder, a thermal binding system, a comb binding system or Velo binding.

An alternative embodiment or definition of the invention includes a program which is loaded, installed or operatively accessible to the computer 160 by medium 172, for example. The program can be a "master macro" which includes the following subroutine macros: modified DIRECT PRINT custom divider macro (CD macro), divider placement macro (DP macro), divider insertion and preview macro (DIP macro) and print macro. The CD macro is the application of specific scripted files that are installed on the user's system and are used to design and print the (DIRECT PRINT) custom dividers. The DP macro is an application which guides the user through the document and allows him to mark the positions in the document where each divider will be placed. The DIP macro places the

divider pages into the locations that the user marked during the DP macro. The pages of the document will be reordered to include the divider pages, but the pages will not be re-numbered to include the dividers as numbered pages.

The DIP macro allows the user to "preview" the electronic divided document including the placement of the dividers. This previewing is accomplished by zooming the view to twenty-five percent or an appropriate size so that the user can see a number of pages at the same time. This allows the user to view the entire document and to make any changes thereto as desired before printing it. And the print macro provides for the printing of the pages of the document from the printer's lower cassette tray 120 and the dividers 128 from the bypass tray 116 with the correct orientation of the nine by eleven inch divider pages achieved.

Accordingly, the user creates or opens a previously-created text-formatted, multi-page document 168. He starts the master macro preferably from within the document so that he can create the divider pages at the end (or less preferably at the beginning) of the document. He can do this by activating the macro which opens a new "master macro" template with the subroutine macros attached to it. The original document is copied and pasted into the new template and the user is prompted to rename the document. Once the document has been renamed, the user places it in the CD macro.

The CD macro can start with a window similar to the DIRECT PRINT software window, prompting for five or eight tab, portrait or landscape. After the selections are made, the "pages" of the dividers are placed at the end of the document and the prompting window is present. The prompting window can have the following steps, namely, (1) create tab titles, (2) add page text and graphics, (3) position dividers, (4) print preview and (5) print. In contrast, the prior art DIRECT PRINT macro has only three steps, namely: (1) select tab to

customize, (2) add page text and graphics and (3) print dividers. In contrast to the DIRECT PRINT macro, the master macro of the present invention can create dividers as a custom size sheet; additionally, the dividers used will preferably be nine by eleven inches instead of 8½ x 11 inches or "letter size."

After the dividers have been created by the user and positioned at the end of the document the user clicks on a button which activates the DP macro. The DP macro brings up a dialog box which includes the following directions "position cursor where the divider will be placed and click on the corresponding tab number to place the divider page." The user positions the cursor at the beginning of each chapter (or document section) and clicks on the dialog box indicating the corresponding tab number. The macro places a "marker" at that spot in the document.

With all of the markers positioned, the user can click on the "Print Preview" button. This activates the DIP macro, which takes the divider pages from the bottom of the document and replaces each marker with the corresponding divider. The pages of the original document are not renumbered, however, to take into account the extra divider pages. Additionally, the dividers should not take on the headers and footers of the document and they retain their custom nine by eleven-inch page size. After the pages are thereby reordered, the user can zoom to twenty-five percent so that a plurality of the pages can be viewed at the same time. The user can thereby check page breaks, formatting and so forth and make any desired changes to the divider pages of the document. When he then clicks on the "Close View" dialog box, the one hundred percent view is restored.

The final step is the printing of the divided document. The print macro prepares the printer 112 (via the printer driver 176) to pull the custom-sized dividers 128 from the

bypass tray 116 and the document pages from the lower cassette tray 120. (Field codes may be used to correctly orient the printing on the divider pages.) The divider pages 128 are located in the printer tray 116 face up with the binding edge feeding first.

Another alternative system of the present invention is illustrated by the flow chart 190 of FIG. 3. Referring to the first block 194 thereof, a user types in generally any word processing, publishing or presentation software program a complete document. The document can include several different sections, chapters and/or appendices. The pages can be formatted as standard 8 ½ by eleven-inch letter paper size, and the document can be formatted in either a portrait or landscape direction.

As shown in the next block 198 in the flow chart, the user activates a "divider formatting macro" (DFM), which is similar to that available from Avery Dennison for the DIRECT PRINT Custom Dividers product line. The DFM opens a dialog box such as that shown in FIG. 4 generally at 202.

The user selects the desired number of the tab titles that is to be edited, and he enters all of the tab titles to correspond to the various sections in his document, as represented by block 206. After entering all of the titles, he activates a "divider page creation macro" (block 210), which creates and appends the electronic divider pages (five, eight or more pages depending on the number of dividers in the set) to the end of the document in sequence and with the desired titles inserted. The pages are formatted to be nine inch by eleven inch and in the same orientation (portrait or landscape) as the body text, with a text box in the corresponding location of the tab extension.

As depicted in block 214, the user then navigates through the added divider pages using their existing software to add text or graphics to the "body" portion of the page. This

functionality is provided as part of the word processing or publishing software. It allows the user to fully customize the tab 136 and complete the body 134 of the divider page 132.

The user then activates a "divider location macro" (DLM) (as shown by box 218), which allows the user to, at the click of a button (of the user input system 168), insert "markers" to denote the preferred locations of specific dividers. The user moves the cursor, either by mouse or by keystroke (using the user input system 168), to the location where the divider is to be inserted. By selecting the corresponding button on the dialog box, the DLM inserts a marker such as "Divider 1" alone on that line. An example of a dialog box is shown generally in FIG. 5 at 222.

When the user is satisfied with the design and layout of the document and dividers he activates the "divider placement macro" (DPM), as shown by block 226 in FIG. 3. The DPM searches for each marker in the document, as depicted by block 230. When a marker is found, the CPM "cuts" the corresponding divider page from the end of the document and "pastes" it in the location of the marker, as illustrated by block 234. The DPM repeats this process until all of the markers have been replaced with the appropriate divider pages (see block 238). The final product at this point is a document of body text (formatted as 8½ by eleven inch pages) intermittently separated by divider pages (formatted as nine by eleven inch pages), which can be previewed (block 242).

The user then loads regular bond or copy paper (pre-drilled or unpunched) into the landscape-fed cassette tray 120 of his printer. Although landscape-fed printers 112 are preferable, the concept in general is also appropriate for portrait fed printers. One disadvantage of the portrait fed printers 112 is that a binding edge folded-over DIRECT PRINT style divider, as shown in the previously-mentioned patents, is likely needed. Preferably, the binding edge 152 is

unfolded. Landscape printers 112 that can be used include the Lexmark Optra 240, 245 and 250, HP LaserJet 4V, 5si, 8000 series, 5000 series, and HP Mopier printers, Xerox N32/N40 printers, and digital copiers. The product can also be compatible with landscape fed ink jet printers 112 with two trays. (See also U.S. Patents 5,496,019 (Yonovich) and 5,502,555 (Lakatos).)

Divider sheets 128 are then loaded into a second multipurpose or manual feed tray 116 of the printer 112, as shown by block 246. The divider sheets 128 can be hole-punched or non-hole-punched, depending on the final binding system to be used. The divider sheet paper 128 can be generally of any thickness, preferably from three mils to twelve mils. The weight can be anywhere from seventy-five grams/square meter (gsm) to two hundred gsm, and is preferably one hundred and sixty-three gsm (ninety pound index). The tab 136 is preferably reinforced with toner or ink jet receptive coated Mylar. The Mylar can be from .75 mil to three mils thick, and preferably 2.0 mils. The peel-off strip 140 can have the same specs as described in the previously-mentioned patents.

The user then directs the printer 112 to print the divided document, for example by clicking on a print command button. The formatting embedded by the "divider page creation macro" in the individual pages dictates from which tray the printer pulls the sheets, as indicated by blocks 250, 254, 258. Following this procedure, a collated document is printed with custom printed dividers in the desired locations in the document and the document is output in the output tray 124 of the printer 112. The document is ready to be bound into a binder, comb binding, thermal binding, or Velo binding system, as shown by block 262.

Another definition of an invention of this disclosure can be understood by the screen shots of FIGS. 6-12 and the

following explanations thereof. The screen shot 270 of FIG. 6 shows a step of clicking on a "Create Dividers" button in the toolbar from within the original document. The number of tabs and divider orientation are selected as shown by screen shot 274 of FIG. 7. The user types in the tab titles as shown by screen shot 278 of FIG. 8.

The screen shot 282 of FIG. 9 shows the step of inserting graphics or text onto the body of the dividers. The user moves the cursor to the desired location and clicks on the button to insert the electronic marker for the divider as shown in the screen shot 286 of FIG. 10. Once the user approves the marker locations, referring to the screen shot 290 of FIG. 11, the software replaces the markers with the formatted divider pages. The user then clicks on the "Print with Dividers" button, as depicted in the screen shot 294 of FIG. 12, to print the final collated document with dividers.

According to another system of the present invention, the software either works within a word processing program (i.e., a macro or an add-in) or as a stand-alone program that allows the user to create and format tab dividers, collate documents from different software applications (e.g., WORD, EXCEL and POWERPOINT), and print them all in a single process. One implementation of this general concept includes the following steps:

(1) The user creates all of the various files that will be compiled into a final document; these files may be created in different software programs and need not be related.

(2) The user creates and formats tab dividers using Avery's DIRECT PRINT Custom Divider software, or a similar program.

(3) The user activates the new macro ("Macro") of this invention.

(4) The Macro pulls up a dialog box 298, similar to the one in FIG. 13. The box asks the user for the file to insert

between each divider. The user positions the cursor between the two dividers and selects the file. A marker is then inserted in the document to mark the location where the file is printed in the final output.

(5) The user repeats the above step until all of the desired files have been incorporated into the original document.

(6) When the formatting is completed, the user clicks on the "print" command, sending the print job to the printer.

(7) The printer prints the document, pulling dividers from one tray and paper from the other. All of the attached files are printed exactly in the order in which they appear in the document. As each marker comes up, the Macro prints the appropriate file using the corresponding software application (e.g., POWERPOINT files are printed by POWERPOINT). The printing of each document does not require any additional interaction by the user.

(8) The final output is a collated document with each file printed in the appropriate location, and with custom printed dividers in between each section.

This above-described system does not require, however, that the tab dividers be printed through the printer 112. Rather, preprinted dividers can also be fed into the printer to be fed through (without additional printing) in the appropriate location.

Alternatively, the interface can be completely graphical, with each of the formatted dividers represented by icons 302 as shown in FIG. 14. Once the dividers are created and formatted, the Macro is pulled up and each tab is shown as an icon in the pop-up window. All files are then dragged and dropped into place.

To help design the tab titles so that they closely or generally correspond to section headings in a document, a further alternative embodiment of the invention is now

discussed with reference to flow chart 306 of FIG. 15. The document is prepared (block 310), and the macro is activated (block 314). The software scans the document, identifies likely section headings and displays those headings as default entries in the tab title entry screen, as depicted by block 318. Referring to block 322, the user then has the option of accepting, editing or replacing the titles with another title (which might be shorter, more appropriate or more descriptive). The user can also remove any of the suggested tab dividers on this entry screen. For example, if the software picks up what appears to be a section heading, but is really not, the user has the opportunity on-screen to delete it from the tab title list.

An example of the embodiment described in the paragraph above follows. Referring generally to FIG. 1, the system 100 includes (1) a printer 112 with a paper tray 120 and a tab divider tray 116, (2) a personal computer assembly 104 with a word processing application 168, a user input 164 and a printer driver 176, and (3) software of this invention loaded onto the personal computer assembly, as by medium 172. The software examines the word processing document that has been created, searching for section titles, as may be designated, for example, by bold headings, numbered headings or underlined headings. The software calculates how many dividers are required and determines how many complete sets of five tab or eight tab dividers are required (block 330), giving the user the option to use five or eight tab sets (block 334). The software inserts a divider before each heading, as shown in block 338. The software creates the tab headings on each divider by copying the heading onto the divider and properly sizing the text to fit on the tab (block 342).

The software allows the user to preview the document with the dividers inserted, as depicted by block 346, and edit the document as depicted by block 350. The software at block 356,

prompts the user to load the correct number of divider sets into the printer tray 116. Upon a user prompt, the printer prints the document with the printed dividers inserted in their proper places, as illustrated by blocks 360, 364, 368. Referring to block 372, the user can then bind the collated printed document.

A further version of the present invention does not use "markers" but instead inserts the dividers one at a time. A process according to this further version can include the following steps:

(1) The user activates a divider formatting macro;

(2) The user inputs and formats text for all of the tab titles on a single screen;

(3) The macro prompts the user to move the cursor to the desired location (in the electronic document(s)), one at a time;

(4) Once the cursor is in position, the user clicks on an on-screen "Next" button;

(5) The macro then inserts a new electronic divider page in the cursor location;

(6) Steps (3)-(5) as outlined above are repeated for each of the dividers;

(7) The user then has the option to insert text and graphics onto each of the divider pages; and

(8) The user can then preview/print the final collated divided document using the macro.

A preferred embodiment of the present invention will now be described with reference to the flow chart 400 of FIG. 16 and the screen shots of FIGS. 17-24. Many of the steps and screen shots are similar to or the same as those described in other embodiments discussed above. Referring to block 404 of FIG. 16 the document is typed using word processing software (or using other software or may have previously been created). The user activates the divider formatting macro of the present

invention (block 408) by clicking on the "Create Dividers" button in the tool bar within the original document, as shown by screen shot 412 in FIG. 17. He then selects the number of tabs and divider orientation as depicted by screen shot 416 of FIG. 18. The next step is to type in the tab titles as depicted by shot 420 of FIG. 19 and step 424 in the flow chart of FIG 16. The macro creates the divider pages at the end of the document, as shown by block 428.

The user moves the cursor to the desired location in the document and clicks on the button to insert the electronic marker at that desired location and continues until all of the dividers have been placed in the document. This is shown by the screen shot 432 of FIG. 20 and block 436 in the flow chart. The user approves the marker locations and activates the divider placement macro (step 440), as depicted in the screen shot 444 of FIG. 21 and the blocks 448, 452 and 456 in the flow chart of FIG. 16.

The user then has the option of adding text and graphics to the divider pages as depicted by the screen shot 460 of FIG. 22 and the decision block 464 of FIG. 16. To add text and/or graphics, the user chooses the divider to edit by clicking on the appropriate numbered button as shown in the screen shot 468 of FIG. 23. The program automatically takes the user to that page for editing, as represented by block 472.

The user can then preview the document on his computer screen, as shown by block 478, and can further edit the document as desired before printing. When ready and referring to the screen shot 482 of FIG. 24, the user clicks on the "Print with Dividers" button to print the final collated document with dividers. If the printer tray 116 is not loaded with blank dividers 128 the user will so load them, as shown by block 486. The printer 112 will then print the document and output it in the output tray 124 of the printer as can be

understood from blocks 490, 494 and 498 in FIG. 16. The printer if it has the capability and is so directed by the user will then bind the document. Otherwise, if binding (such as three hole, Velo binding, spiral binding, comb binding or thermal glue binding) is desired, the user will take that step as shown by the final block 502 in the flow chart of FIG. 16.

A further (less preferred) embodiment allows the user to add tab text to the electronic dividers after the dividers have been positioned in the document. Steps of such a system can be as follows:

(1) the user activates the divider formatting macro;

(2) the macro then prompts the user to move the cursor to desired location of each divider, one at a time;

(3) with the cursor in position, the user clicks an on-screen button;

(4) the macro then inserts a new electronic "divider page" in the cursor location;

(5) the user is prompted for the tab text that is associated with the divider;

(6) steps (2)-(5) are then repeated for each divider;

(7) the user then has the option to insert text and graphics onto each of the divider pages; and

(8) the user can then preview/print the final collated divided document using the macro.

From the foregoing detailed description, it will be evident that there are a number of changes, adaptations and modifications of the present invention which come within the province of those skilled in the art. As an example, a number of embodiments of the invention are described hereabove and a further alternative can be to combine different features of them as would be apparent to those in the art. A further example includes that the divider sheet not have a tab on it; it can simply be different from the document pages, for example be a different size, shape, weight and/or color.

Another example is that the printing on the tab divider sheet not be on the tab, itself, but rather only on other areas of the sheet. However, it is intended that all such variations not departing from the spirit of the invention be considered as within the scope thereof.

What is Claimed is:

1. A printing system, comprising:

a printer assembly including a printer, a page sheet input, a tab divider sheet input and a printed document output;

a computer assembly including a computer, a word processing application, a user input, and a printer driver, the printer driver being operatively connected to the printer; and

a computer readable medium containing instructions, when loaded into the computer, for (a) opening a document in the word processing application as requested by a user, (b) receiving printing instructions from a user via the user input as to indicia to be printed on tab divider sheets, (c) noting in pages of the document via the user input locations in the document where the printed tab divider sheets are to be placed as selected by the user, and (d) directing the printer driver to control the printer to print the document on sheets from the page sheet tray, to print the tab divider sheets pursuant to the printing instructions and to output the printed document sheets and the printed tab divider sheets as a printed divided document in the output with the printed tab divider sheets in the locations in the document as denoted by the noted locations.

2. The system of claim 1 wherein the medium is a floppy disk or a CD-ROM.

3. The system of claim 1 wherein the printer is a digital copier.

4. A printing system, comprising:

a printing assembly including a printer, a printer first feed tray for holding page sheets, a printer second feed tray for holding tab dividers and a printer output tray;

a computer assembly including a user input system, a printer driver and a computer, the printer driver being operatively connected to the printer; and

computer readable medium having a program configured when loaded in the computer and activated to cause tab dividers from the second feed tray to be printed pursuant to printing design instructions previously input by a user through the user input system and sheets from the first feed tray to be printed with the tab dividers in a relative order previously input by a user through the user input system and output in the output tray as a predetermined printed divided document.

5. The system of claim 4 wherein the computer has at least one application program loaded therein and the program of the computer readable medium operates in conjunction with the at least one application program.

6. The system of claim 4 wherein the computer readable medium includes a floppy disk or a CD-ROM.

7. The system of claim 4 wherein the printer is a digital copier.

8. A printing system, comprising:

a printer assembly including a printer, a page sheet input, a tab divider sheet input and a printed document output;

a computer assembly including a computer, a word processing application, a user input, and a printer driver, the printer driver being operatively connected to the printer; and

a first computer readable medium containing instructions, when loaded into the computer, for receiving instructions from a

user via the user input for formatting electronic tab divider sheets; and

a second computer readable medium containing instructions, when loaded into the computer, for receiving user instructions via the user input for a desired relative ordering of the tab divider sheets and pages of one or more electronic files to create an electronic divided document, and for subsequently instructing the printer driver to direct the printer to print the document on sheets from the page sheet tray, to print tab divider sheets from the tab divider sheet input pursuant to the user instructions and to output the printed document sheets and the printed tab divider sheets as a printed divided document in the printed document output and corresponding to the electronic divided document.

9. The system of claim 8 wherein the printer is a digital copier.

10. A printing system, comprising:

first means for receiving in a computer system tab divider sheet printing instructions from a user;

second means for receiving in a computer system positioning instructions from a user for relative positioning of printed tab divider sheets and pages of one or more files to design an electronic divided document;

directing means for directing a printer to print and output the tab divider sheets pursuant to the printing instructions and the pages in the order of the positioning instructions to form a custom divided document corresponding to the electronic divided document.

11. The system of claim 10 wherein the first and second means and the directing means are included in a program carried on a computer readable medium.

12. The system of claim 10 wherein the first and second means and the directing means are included in at least one program downloaded off of the Internet into the computer system.

13. The system of claim 10 wherein the positioning instructions cause a different one of the files to be positioned between adjacent divider sheets.

14. A printing system, comprising:

a printer assembly including a printer, a paper input tray, a tab divider input tray and an output tray; and

a computer assembly including a printer command which when activated by a user causes the printer to automatically form a predetermined divided document by removing pages from the paper input tray and tab dividers from the tab divider input tray, printing the dividers with user-preselected indicia in preselected locations thereon and the pages and depositing the printed dividers and pages in a user-preselected order in the output tray as the predetermined divided document.

15. The system of claim 14 wherein the predetermined divided document is formed from a single electronic document divided into different sections by electronic dividers.

16. The system of claim 14 wherein the predetermined divided document is formed from a plurality of different electronic documents separated from one another by electronic dividers.

17. The system of claim 14 wherein the printer command includes a print button on which the user can click.

18. The system of claim 14 wherein the printer is a digital copier.

19. A printing system, comprising:

a printer assembly including a printer, a page sheet input, a tab divider sheet input and a printed document output; and

a computer assembly including a computer and a user input, wherein the computer is operatively connected to the printer;

the computer being programmed and operable by a user via the user input (a) to select headings of an electronic document to define at least in part indicia for electronic tab dividers, (b) to position the electronic tab dividers relative to at least some of the headings to form an electronic divided document, and (c) to direct the printer to print the indicia on tab dividers from the tab divider sheet input, to print the electronic document on paper sheets from the page sheet input and automatically output in the printed document output a printed divided document corresponding to the electronic divided document.

20. The system of claim 19 wherein the printer is a digital copier.

21. The system of claim 19 wherein the printer prints the indicia on tabs of the tab dividers.

22. The system of claim 19 wherein the computer is programmed and operable to allow the user to modify at least one of the headings to form the indicia.

23. A printer assembly, comprising:

a printer;

a document page input tray operatively associated with the printer;

a tab divider input tray operatively associated with the printer; and

an output tray operatively associated with the printer;

wherein the printer is operatively connected to a printer driver which causes following a user prompt, tab dividers from the divider input tray to be removed and automatically printed by the printer with desired user-selected indicia and pages from the page input tray to be printed and automatically output with the printed tab dividers in a predetermined user-selected sequence in the output tray as a predetermined printed divided document.

24. The assembly of claim 23 wherein the printer is a digital copier.

25. A computer having a computer input, the computer being programmed to:

allow a user to design using the input a set of electronic printed tab dividers with tab titles;

allow a user using the input to indicate in an electronic document on the computer desired locations for each of the electronic printed tab dividers; and

cause the electronic printed tab dividers to be inserted in the desired locations to thereby form an electronic divided document.

26. The computer of claim 25 wherein the electronic printed tab dividers are inserted in their respective desired locations individually after the user indicates the desired location for each of them.

27. The computer of claim 25 which is further programmed to allow a user to instruct a printer to print from tab dividers in a first tray of the printer and paper sheets in a second tray of the printer and to output a collated divided document thereby formed and corresponding to the electronic divided document.

28. The computer of claim 25 which is further programmed to allow a user to add electronic text or graphics to one of the electronic printed tab dividers wherein the text or graphics thereby form part of the electronic divided document.

29. The computer of claim 25 which is further programmed such that the desired locations are noted by placement of electronic markers in the electronic document, and the insertion of the electronic printed tab dividers is by a user causing the computer to electronically replace the markers with the tab dividers.

30. The computer of claim 25 wherein the electronic printed tab dividers are all inserted in their respective desired locations at the same time.

31. A computer operatively connectable to a printer having a document page input, a tab divider input and a printed document output, and programmed to upon a user prompt:

direct the printer to print pages from the document page input corresponding to one or more files;

direct the printer to print predetermined indicia on tabs of tab dividers from the tab divider input; and

direct the printer to deposit the printed tab dividers and printed pages in a predetermined relative positioning to form a predetermined divided document in the printer output.

32. A computer operatively connectable to a printer having a document page tray, a tab divider tray and a printed document output and programmed to:

identify section headings in an electronic document;

insert electronic dividers before at least some of the headings;

copy at least some of the headings or modifications thereof on tabs of respective ones of the dividers to form an electronic divided document; and

direct the printer to print on pages from the page input and tab dividers from the tab divider tray and output into the printed document output a printed divided document corresponding to the electronic divided document.

33. A computer readable medium readable by a computer when loaded therein and including instructions for:

designing on the computer electronic versions of printed tab dividers;

selecting on the computer locations in an open word processing document for each of the tab dividers; and

causing a printer operatively connected to the computer, to automatically print the tab dividers and the document and to output the dividers and pages of the document with the tab dividers at the selected locations in the document.

34. A computer readable medium readable by a computer when loaded therein and including instructions for:

designing on the computer electronic versions of printed tab dividers;

selecting on the computer relative positions of each of the tab dividers and a plurality of electronic files; and

causing a printer operatively connected to the computer, to automatically print the tab dividers and the files and output the dividers and the files in the relative positions.

35. The medium of claim 34 wherein the relative positions include tab dividers being positioned between adjacent files.

36. A computer readable medium when loaded into a computer system containing instructions for:

designing on the computer system tab dividers by a user indicating indicia to be printed on tab dividers at one or more locations thereon;

designing on the computer system a divided electronic document by a user noting the relative ordering of the tab dividers and pages of one or more files; and

transmitting instructions via the computer system to a printer operatively connected thereto to automatically print on sheets from a page-input tray and tab divider sheets from a divider sheet input tray, and output a divided document corresponding to the electronic document.

37. The medium of claim 36 wherein the one or more files consists of a single file.

38. The medium of claim 36 wherein the one or more files include a plurality of files and the relative ordering includes the tab dividers separating the files.

39. The medium of claim 38 wherein the files are from at least two different software applications.

40. A computer readable medium containing a program, when loaded into a computer system, for:

receiving user instructions input into the computer system for designing indicia to be printed on tab dividers;

receiving user instructions via the computer system for creating an electronic document formed by electronic versions of the tab dividers collated relative to pages in one or more electronic divided files; and

receiving user instructions via the computer system which are communicated to a printer to print and automatically form from tab dividers and paper pages from respective printer trays a printed divided document corresponding to the electronic divided document.

41. A computer readable medium containing instructions for creating and automatically printing a document which includes custom-printed tab dividers collated with printed pages of one or more files, by:

allowing a user to create and format electronic versions of printed tab dividers in a computer system;

allowing via a computer system a user to indicate relative positioning of the electronic versions of each of the tab

dividers relative to pages of one or more electronic files to form an electronic document; and

allowing a user to instruct via the computer system a printer to remove tab dividers from a printer first tray and page sheets from a printer second tray, and printing and outputting the dividers and sheets in an order corresponding to the relative positioning to form a divided document in a printer outfeed wherein the divided document corresponds to the electronic document.

42. A computer readable medium containing program instructions for:

receiving tab divider sheet printing instructions from a user;

receiving from a user positioning instructions for positioning tab divider sheets in desired positions relative to pages in one or more files; and

directing a printer to print the pages on page sheets, to print tab divider sheets pursuant to the sheet printing instructions, and to output the printed pages and tab dividers in the desired positions to form a printed divided document.

43. The medium of claim 42 wherein the printing instructions include printing on tabs and on bodies of the tab divider sheets.

44. A computer readable medium when loaded into a computer system containing instructions for:

allowing a user to indicate in the computer system a desired ordering of a plurality of user-custom-formatted tab dividers relative to a plurality of previously-created

electronic files to thereby create an electronic divided document; and

allowing the user to direct via the computer system a printer operatively connected thereto to print a collated divided document corresponding to the electronic divided document from tab divider sheets in one printer tray and paper sheets in another printer tray.

45. A computer readable medium containing program instructions when loaded into a computer system, for:

positioning electronic tab dividers relative to headings in an electronic document to form an electronic divided document; and

directing a printer to print tab dividers from a printer first tray and paper sheets from a printer second tray and automatically output a printed divided document corresponding to the electronic divided document.

46. The medium of claim 45 wherein the directing follows a user "print" prompt into the computer system.

47. The medium of claim 45 wherein the instructions include formatting the electronic tab dividers to include printed indicia associated with respective ones of the headings.

48. The medium of claim 45 wherein the formatting includes allowing a user to select the indicia so that at least some of the indicia are modified headings.

49. The medium of claim 45 wherein the instructions further include before the positioning, identifying the headings.

50. The medium of claim 49 wherein the headings are in a different style than other words in the electronic document.

51. The medium of claim 50 wherein the different style is selected from the group of bold faced, italicized, numbered and lettered.

52. The medium of claim 45 wherein the instructions further comprise calculating the number of tab dividers needed for the electronic divided document.

53. The medium of claim 45 wherein the instructions further comprise after the calculating, allowing a user to select between five-tab divider and eight-tab divider sets to be used to form the divided document.

54. A computer readable medium containing a program when loaded into a computer system, for:

allowing a user on the computer system to select and modify respective headings of an electronic document to define respective printed indicia for electronic tab dividers; and

allowing a user on the computer system to position the electronic tab dividers relative to at least some of the headings in the electronic document to form an electronic divided document.

55. The medium of claim 54 wherein the program allows a user on the computer system to instruct a printer to print on paper pages and tab divider sheets and output a printed divided document corresponding to the electronic divided document.

56. A computer readable medium readable by a computer when loaded therein and including instructions for:

allowing a user to design on the computer a set of electronic printed tab dividers with tab titles;

allowing a user to indicate with electronic markers in an electronic document on the computer desired locations for each of the electronic printed tab dividers; and

allowing a user to cause the electronic printed tab dividers to be inserted in the desired locations by replacing the electronic markers with respective ones of the electronic printed tab dividers to thereby form an electronic divided document.

57. The medium of claim 56 further comprising instructions for allowing a user to instruct, upon a user prompt, a printer to print from tab dividers in a first tray of the printer and paper sheets in a second tray of the printer and to output a collated divided document thereby formed and corresponding to the electronic divided document.

58. The medium of claim 57 wherein the user prompt includes the user clicking on a print button of the computer system to instruct the printer to print.

59. The medium of claim 57 further comprising before the user prompt, allowing a user to preview the electronic divided document on the computer system.

60. The medium of claim 56 wherein the allowing a user to design includes the user typing the tab titles for respective ones of the tab dividers into the computer.

61. The medium of claim 56 wherein the allowing a user to design includes before the typing, selecting the number of tab dividers for the electronic divided document.

62. The medium of claim 61 wherein the selecting includes selecting a portrait or landscape orientation of the tab dividers.

63. The medium of claim 56 wherein the allowing a user to indicate includes for each desired location, moving a cursor to the desired location and then clicking on a button to insert an electronic marker at the location.

64 The medium of claim 56 wherein the allowing a user to cause includes electronically replacing the markers with the tab dividers.

65. The medium of claim 56 further comprising instructions for allowing a user to add electronic text or graphics to one of the electronic printed tab dividers wherein the text or graphics thereby form part of the electronic divided document.

66. The medium of claim 65 wherein the adding includes clicking on a number corresponding to the placement order of the one of the electronic printed tab dividers.

67. A method of creating document printing instructions, comprising:

(a) selecting on a monitor of a computer indicia to be printed at one or more desired locations on tab dividers;

(b) selecting on the monitor a desired ordering of the tab dividers relative to pages in one or more files to form an electronic divided document; and

(c) entering an instruction via the computer to a printer to print tab dividers and pages of the one or more files from respective trays of the printer to form and output a printed divided document corresponding to the electronic divided document.

68. The method of claim 67 further comprising after (a) and (b) and before (c), previewing the electronic divided document on the monitor.

69. The method of claim 67 wherein (a) is before (b).

70. The method of claim 67 wherein (b) is before (a).

71. The method of claim 67 wherein the one or more files includes a plurality of files, and the desired ordering includes at least some of the tab dividers being positioned between adjacent ones of the files.

72. A method of creating a printed divided document, comprising:

selecting on a computer indicia to be printed on tab dividers at desired locations thereon;

electronically positioning on the computer the tab dividers with pages of one or more files to create an electronic divided document; and

transmitting via the computer directions to a printer having a tab divider sheet infeed tray and a file page infeed

tray to print and output a divided document corresponding to the electronic divided document.

73. The method of claim 72 further comprising before the transmitting, previewing the electronic divided document on the computer.

74. The method of claim 72 wherein the electronically positioning includes inserting electronic markers at desired positions relative to the pages and subsequently replacing the markers with the tab dividers.

75. The method of claim 72 wherein the electronically positioning includes noting the location of one divider, inserting it and then proceeding to the next.

76. A method of forming a document, comprising:

(a) creating and formatting electronic versions of printed tab dividers;

(b) indicating in a computer system a desired relative positioning of the tab dividers and pages of one or more electronic files to create an electronic divided document; and

(c) after (a) and (b), instructing using the computer system a printer to automatically print and output in the desired relative positioning tab dividers and pages of the one or more files to thereby form a printed tab document corresponding to the electronic divided document.

77. The method of claim 76 wherein (c) includes instructing the printer to print preselected indicia on tab portions of the tab dividers.

78. A method forming a printed divided document, comprising:

(a) providing a plurality of electronic files;

(b) creating and formatting on a computer system electronic tab dividers;

(c) indicating via the computer system a desired relative ordering of the files and the electronic tab dividers to create an electronic divided document; and

(d) instructing via the computer system a printer operatively connected thereto to print from tab dividers in a first tray of the printer and paper sheets in a second tray of the printer and output a collated divided document corresponding to the electronic divided document.

79. The method of claim 78 wherein (a) includes creating the electronic files.

80. The method of claim 78 wherein the files are from at least two different software applications.

81. The method of claim 78 wherein (b) and (c) use different macros loaded into the computer system.

82. The method of claim 78 wherein (d) includes clicking on a print button.

83. The method of claim 78 wherein (c) includes indicating a first position of a first of the tab dividers relative to the pages, then inserting the first tab divider at the first position, then indicating a second position of a second of the tab divider relative to the pages, and then inserting the second tab divider at the second position.

84. The method of claim 83 wherein (c) further includes after inserting the second tab divider, inserting the rest of the tab dividers at their respective desired positions.

85. A method of forming a document, comprising:

designing on a computer electronic versions of printed tab dividers;

selecting on the computer locations in an open word processing document for each of the tab dividers; and

causing a printer operatively connected to the computer, to automatically print the tab dividers and the document and output the dividers and pages of the document with the tab dividers at the selected locations in the document.

86. A method of forming a printed divided document, comprising:

providing a plurality of electronic files;

providing a plurality of custom-formatted electronic tab dividers;

noting on a computer screen relative positions of the dividers and the files to form an electronic divided document; and

directing a printer to automatically print tab dividers from a printer first tray to correspond to the electronic tab dividers, to print from pages in a printer second tray the files and to output the printed tab dividers and printed pages in the relative positions to form a printed divided document corresponding to the electronic divided document.

87. The method of claim 86 wherein the noting includes the electronic tab dividers forming an initial document and marking locations in the initial document where each of the files is to be inserted.

88. The method of claim 87 wherein after each individual marking location has been noted, inserting the corresponding electronic tab divider and then marking the location of the next electronic tab divider.

89. The method of claim 86 wherein the noting includes after marking the locations of all of the electronic tab dividers, inserting all of them in their respective marked locations.

90. The method of claim 86 further comprising before the directing, previewing the electronic divided document on the computer screen.

91. A method of forming a divided document, comprising:

on a computer screen of a computer system, selecting headings in an electronic document to at least in part define printed indicia for electronic tab dividers;

on the computer screen, indicating a relative position of the electronic tab dividers and at least some of the headings to form an electronic divided document; and

directing, via the computer system, a printer to automatically print tab dividers from a printer first tray to correspond to the electronic tab dividers, to print from pages in a printer second tray the electronic document and to output the printed tab dividers and printed pages in the relative positions to form a printed divided document corresponding to the electronic divided document.

92. The method of claim 91 further comprising on the computer screen modifying the selected headings to define the printed indicia.

93. The method of claim 91 further comprising before the directing, previewing the electronic divided document on the computer screen.

94. A method of forming a printed divided document, comprising:

(a) designing on a computer system a set of electronic printed tab dividers with tab titles;

(b) indicating in an electronic document on the computer system desired locations for each of the electronic printed tab dividers; and

(c) causing the electronic printed tab dividers to be inserted in the desired locations to thereby form an electronic divided document.

95. The method of claim 94 further comprising instructing a printer to print from tab dividers in a first tray of the printer and paper sheets in a second tray of the printer and to output a collated divided document thereby formed and corresponding to the electronic divided document.

96. The method of claim 95 wherein the instructing includes clicking on a print button of the computer system.

97. The method of claim 94 further comprising before the instructing, previewing the electronic divided document on the computer system.

98. The method of claim 94 wherein the designing includes typing the tab titles for respective ones of the tab dividers into the computer system.

99. The method of claim 98 wherein the designing includes before the typing, selecting the number of tab dividers for the electronic divided document.

100. The method of claim 99 wherein the selecting includes selecting a portrait or landscape orientation of the tab dividers.

101. The method of claim 94 wherein the indicating includes for each desired location, moving a cursor to the desired location and then clicking on a button to insert an electronic marker.

102. The method of claim 94 wherein the causing includes electronically replacing the markers with the electronic printed tab dividers.

103. The method of claim 94 further comprising adding electronic text or graphics to one of the electronic printed tab dividers wherein the text or graphics thereby form part of the electronic divided document.

104. The method of claim 103 wherein the adding includes clicking on a number corresponding to the placement order of the one of the electronic printed tab dividers.

105. The method of claim 94 wherein (c) includes inserting all of electronic printed tab dividers after all of the desired locations have been indicated.

106. The method of claim 94 wherein (b) and (c) include indicating a first desired location of a first of the electronic dividers then inserting the first of the electronic dividers at the first location, and then indicating a second desired location for a second of the electronic dividers.

107. The method of claim 106 wherein (b) and (c) further include after indicating the second desired location, inserting the second of the electronic dividers at the second location, and continuing until all of the electronic dividers have been inserted at their respective desired locations.

108. A method of forming a divided document, comprising:

(a) inputting and formatting on a computer system text for tab titles for a plurality of electronic tab dividers;

(b) indicating a first desired location in an electronic document of a first of the electronic tab dividers;

(c) inserting the first divider in the first desired location;

(d) after (b) and (c), indicating a second desired location in the electronic document of a second of the electronic tab dividers;

(e) after (d) inserting the second divider in the second desired location; and

(f) inserting the rest of the electronic tab dividers at respective desired locations in the electronic document.

109. The method of claim 108 further comprising (g) inserting at least one of text or graphics onto at least one of the electronic tab dividers.

110. The method of claim 109 wherein (g) is after (f).

111. The method of claim 108 further comprising (g) after (f), previewing on a computer monitor an electronic divided document formed by (a)-(f).

112. The method of claim 108 wherein a user uses a macro on the computer system for (a)-(f).

113. A method of forming a divided document, comprising:

providing an electronic first document from a first software application, an electronic second document from a second different software application and at least an electronic third document;

providing a plurality of electronic tab dividers;

selecting on a computer screen a relative ordering of the documents and the dividers to form an electronic divided document; and

directing a printer from a paper pages in a printer first tray and tabbed index dividers in a printer second tray to print and output a collated divided printed document corresponding to the electronic divided document.

114. The method of claim 113 wherein the electronic tab dividers include user-customized tab printing.

115. The method of claim 114 wherein the directing includes directing the printer to print tabs of the tabbed index dividers corresponding to the user-customized tab printing.

116. The method of claim 113 wherein the tabbed index dividers in the second tray are preprinted tabbed index dividers.

117. The method of claim 113 wherein the selecting includes the user using a dialog box on the computer screen.

118. The method of claim 113 wherein the selecting includes the user marking the location where each of the documents is to be inserted between the electronic tab dividers.

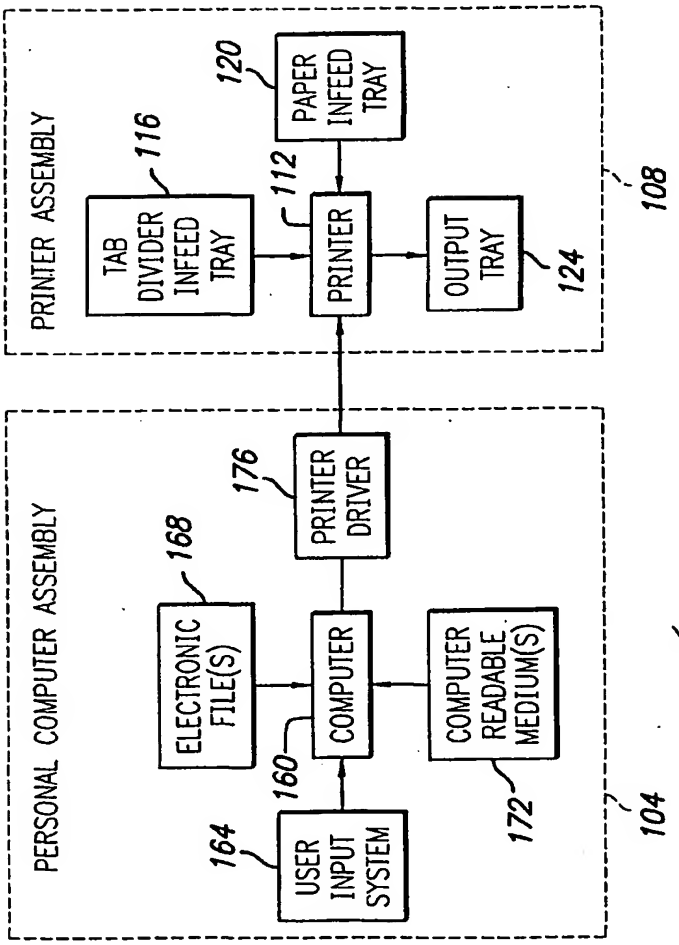

PERSONAL COMPUTER ASSEMBLY
PRINTER ASSEMBLY
TAB DIVIDER INFEED TRAY
PAPER INFEED TRAY
PRINTER
OUTPUT TRAY
PRINTER DRIVER
ELECTRONIC FILE(S)
COMPUTER
COMPUTER READABLE MEDIUM(S)
USER INPUT SYSTEM
100
104
108
112
116
120
124
160
164
168
172
176

FIG. 1

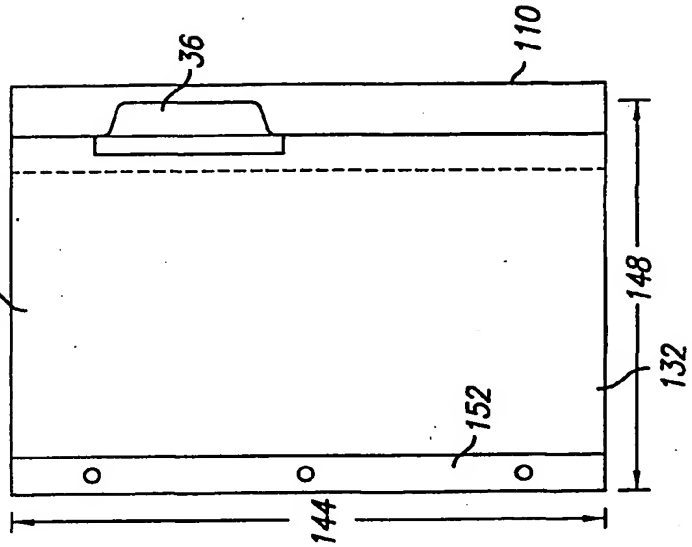

36
110
128
134
148
132
152
144

FIG. 2

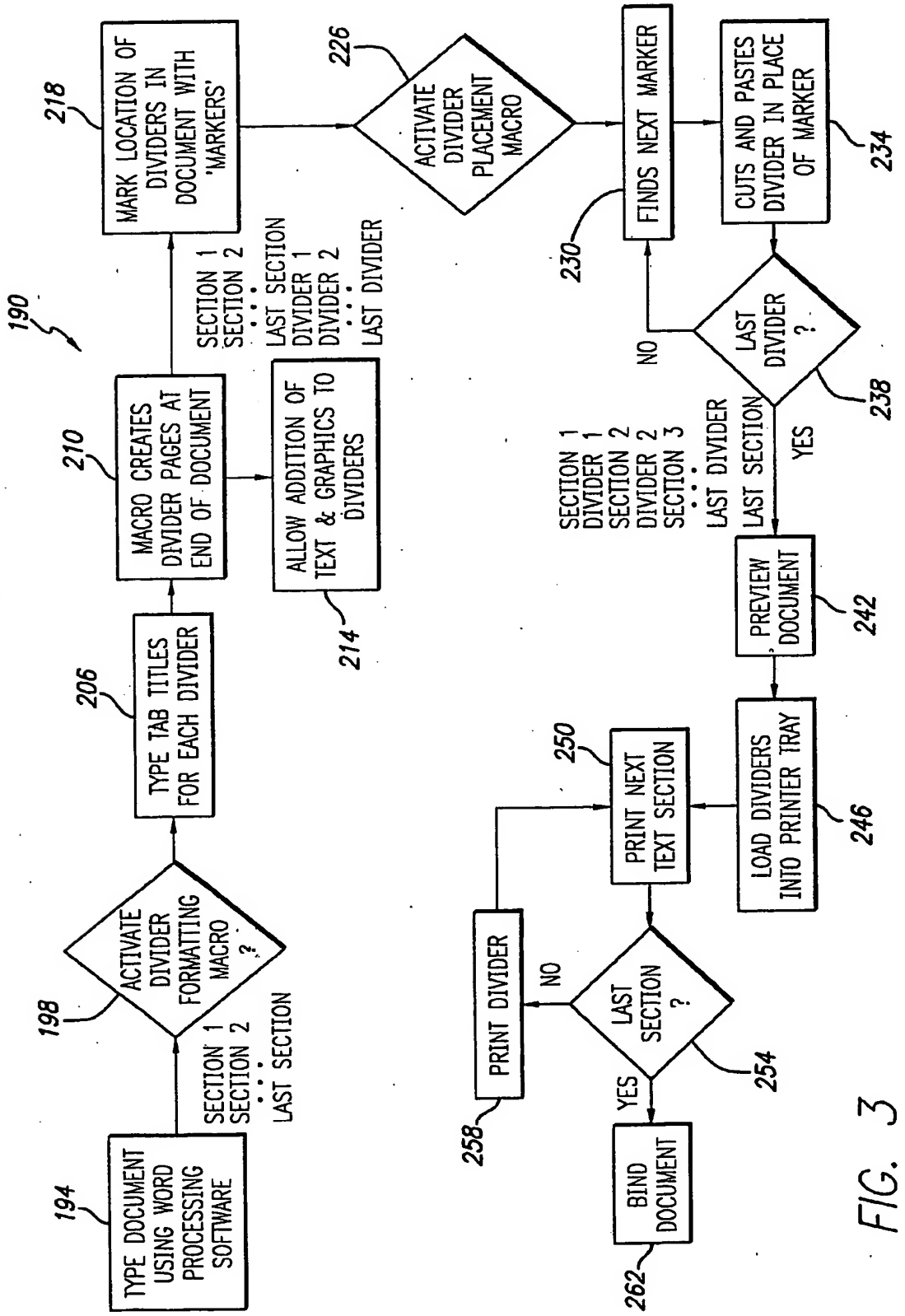

TYPE DOCUMENT USING WORD PROCESSING SOFTWARE
194
ACTIVATE DIVIDER FORMATTING MACRO ?
198
SECTION 1
SECTION 2
LAST SECTION
TYPE TAB TITLES FOR EACH DIVIDER
206
MACRO CREATES DIVIDER PAGES AT END OF DOCUMENT
210
190
ALLOW ADDITION OF TEXT & GRAPHICS TO DIVIDERS
214
SECTION 1
SECTION 2
LAST SECTION
DIVIDER 1
DIVIDER 2
LAST DIVIDER
MARK LOCATION OF DIVIDERS IN DOCUMENT WITH 'MARKERS'
218
ACTIVATE DIVIDER PLACEMENT MACRO
226
FINDS NEXT MARKER
230
CUTS AND PASTES DIVIDER IN PLACE OF MARKER
234
LAST DIVIDER ?
238
NO
YES
SECTION 1
DIVIDER 1
SECTION 2
DIVIDER 2
SECTION 3
LAST DIVIDER
LAST SECTION
PREVIEW DOCUMENT
242
LOAD DIVIDERS INTO PRINTER TRAY
246
PRINT NEXT TEXT SECTION
250
LAST SECTION ?
254
NO
YES
PRINT DIVIDER
258
BIND DOCUMENT
262

FIG. 3

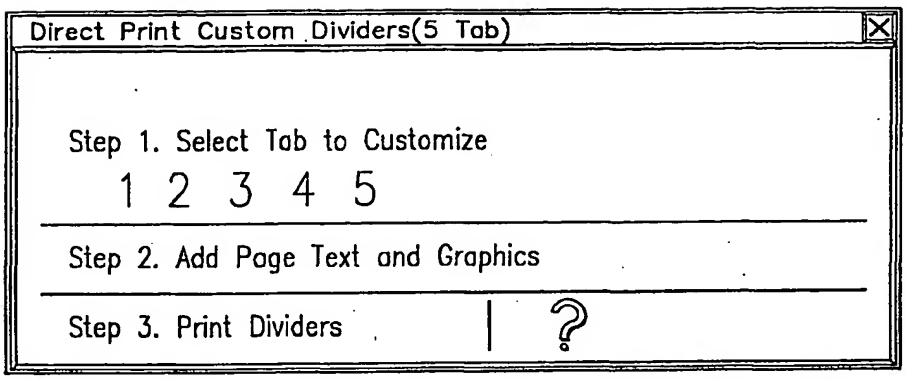



FIG. 4

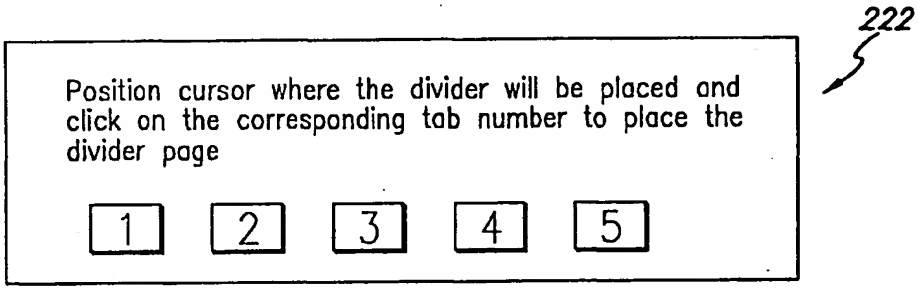



FIG. 5

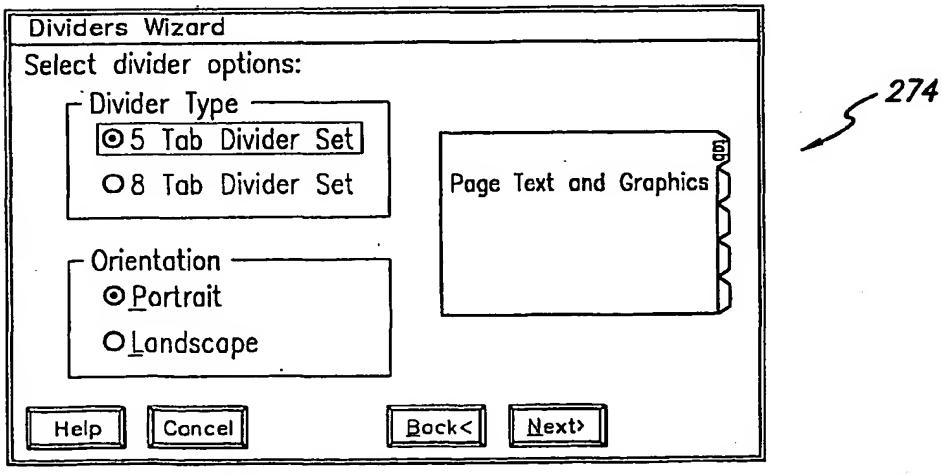



FIG. 7

FIG. 6

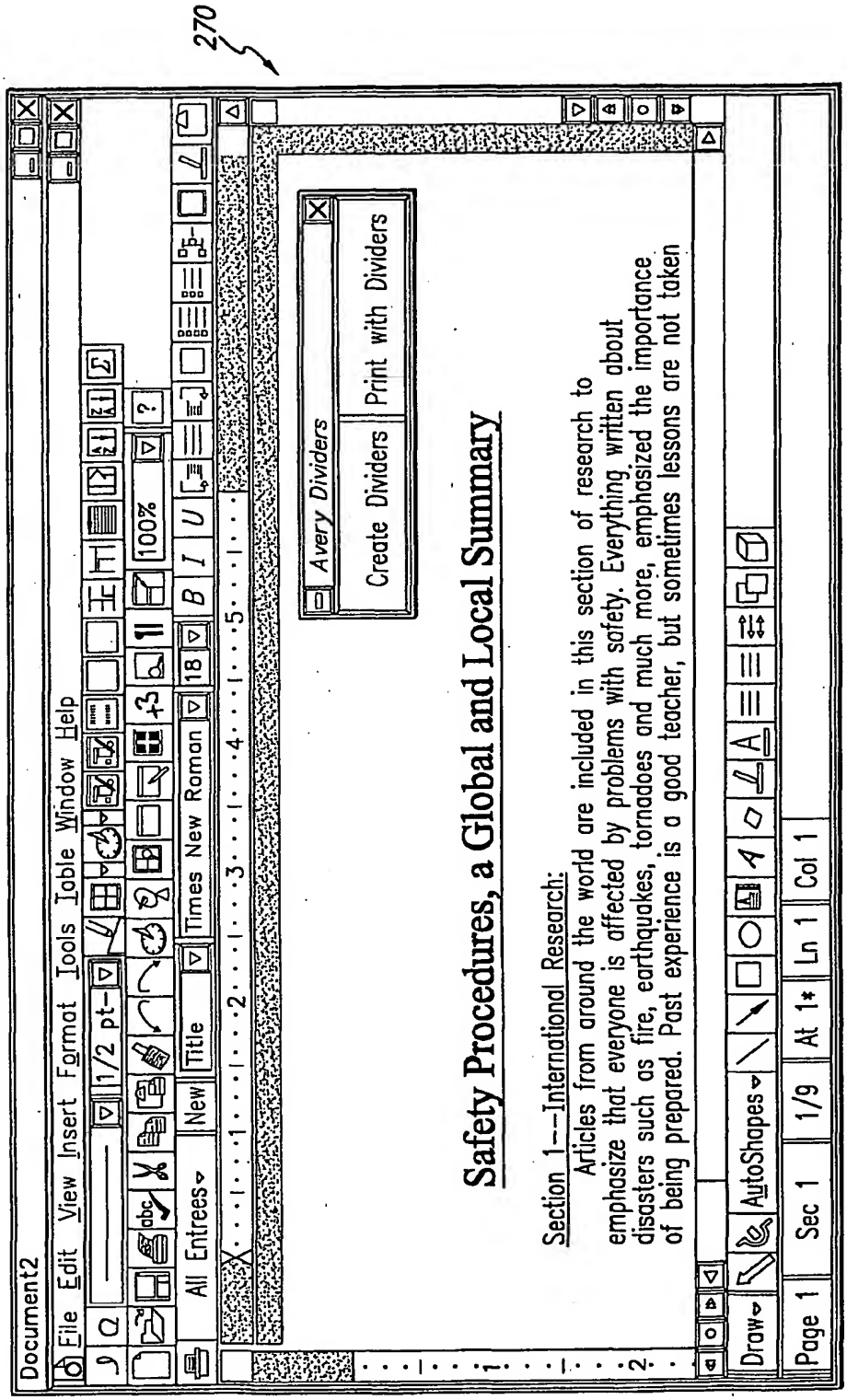
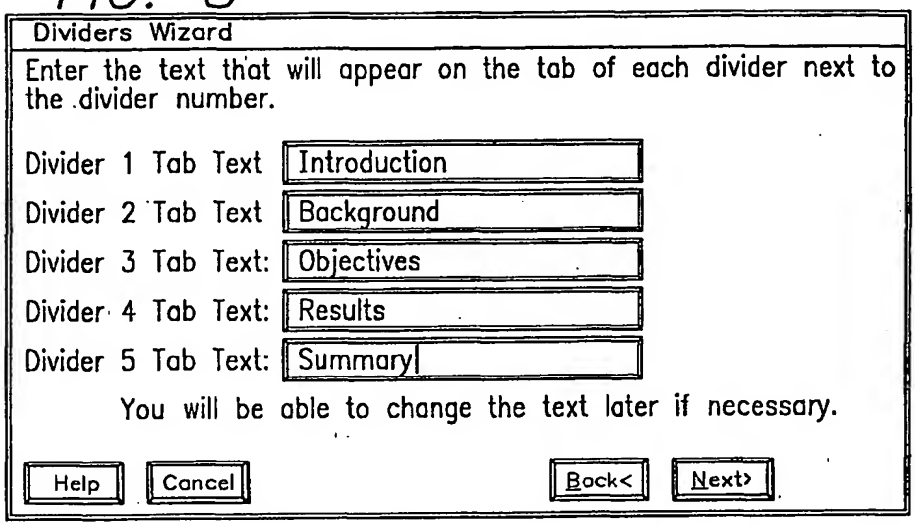

270
Document2
File Edit View Insert Format Tools Table Window Help
All Entrees
New
Title
Times New Roman
18
100%
Avery Dividers
Create Dividers
Print with Dividers
Safety Procedures, a Global and Local Summary
Section 1--International Research:
Articles from around the world are included in this section of research to emphasize that everyone is affected by problems with safety. Everything written about disasters such as fire, earthquakes, tornadoes and much more, emphasized the importance of being prepared. Past experience is a good teacher, but sometimes lessons are not taken
Draw
AutoShapes
Page 1
Sec 1
1/9
At 1*
Ln 1
Col 1

FIG. 8



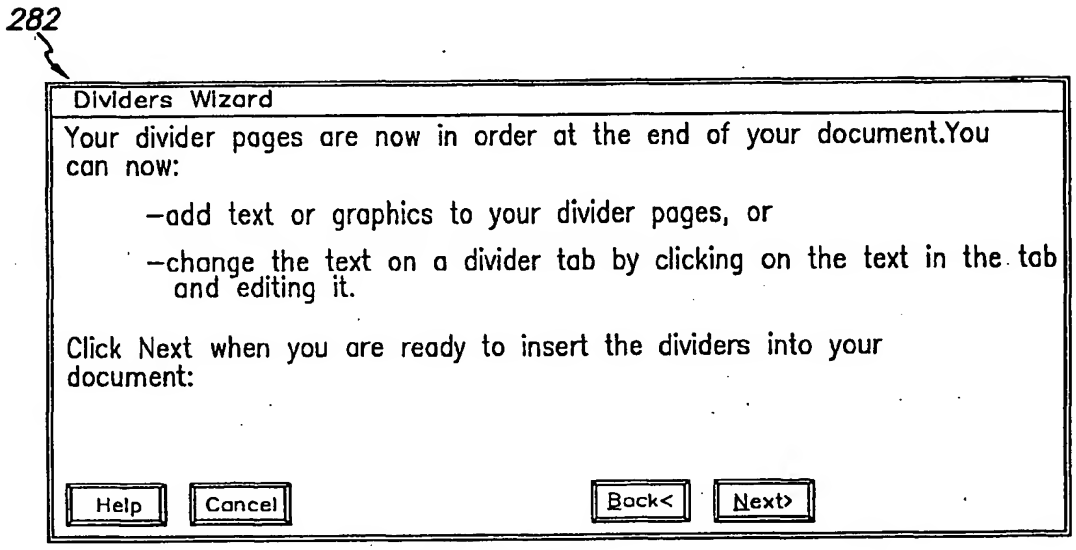




FIG. 9

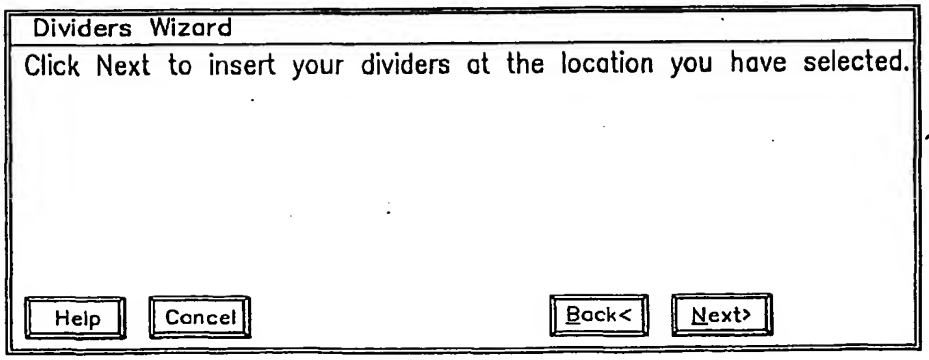



FIG. 11

FIG. 10

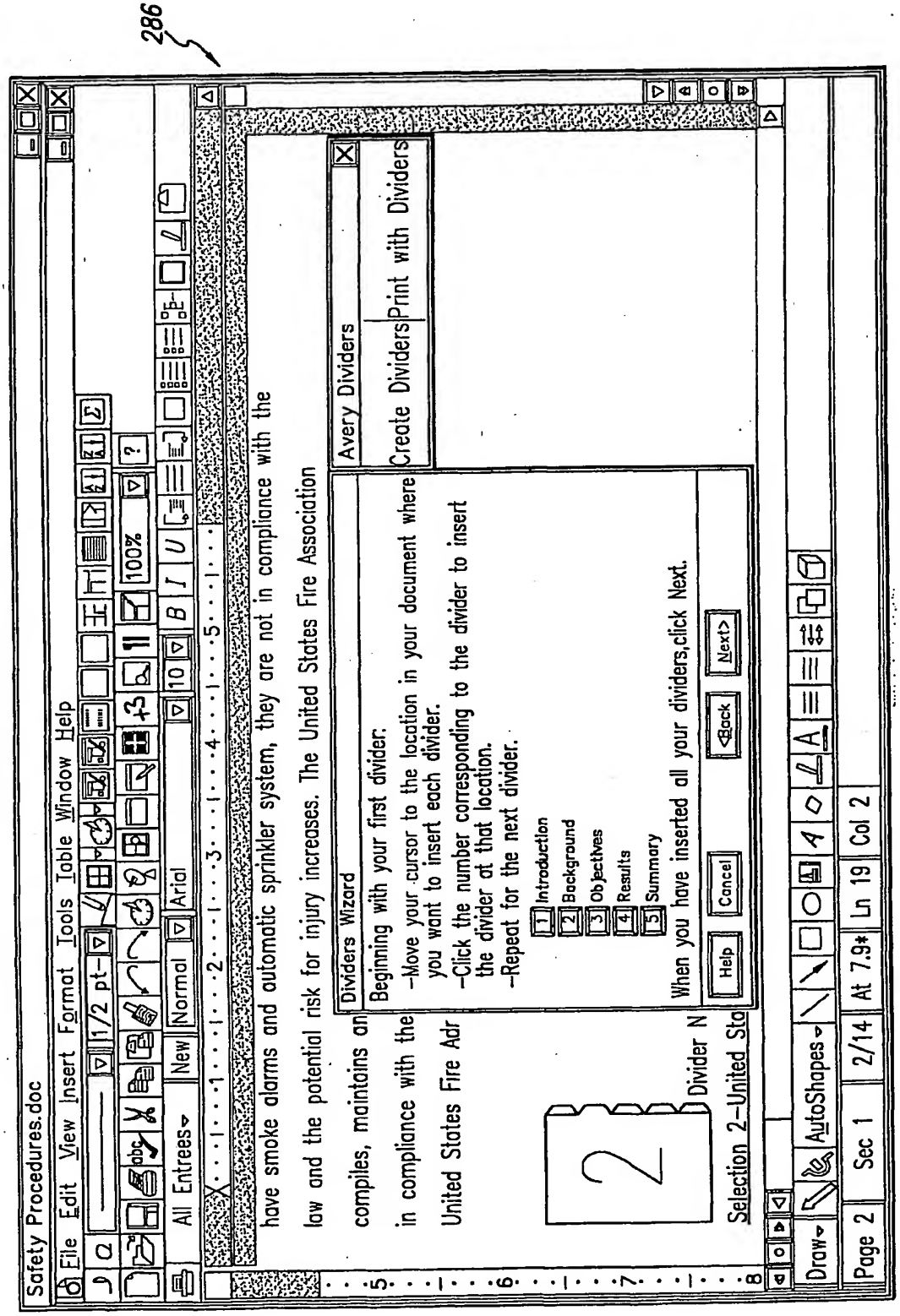
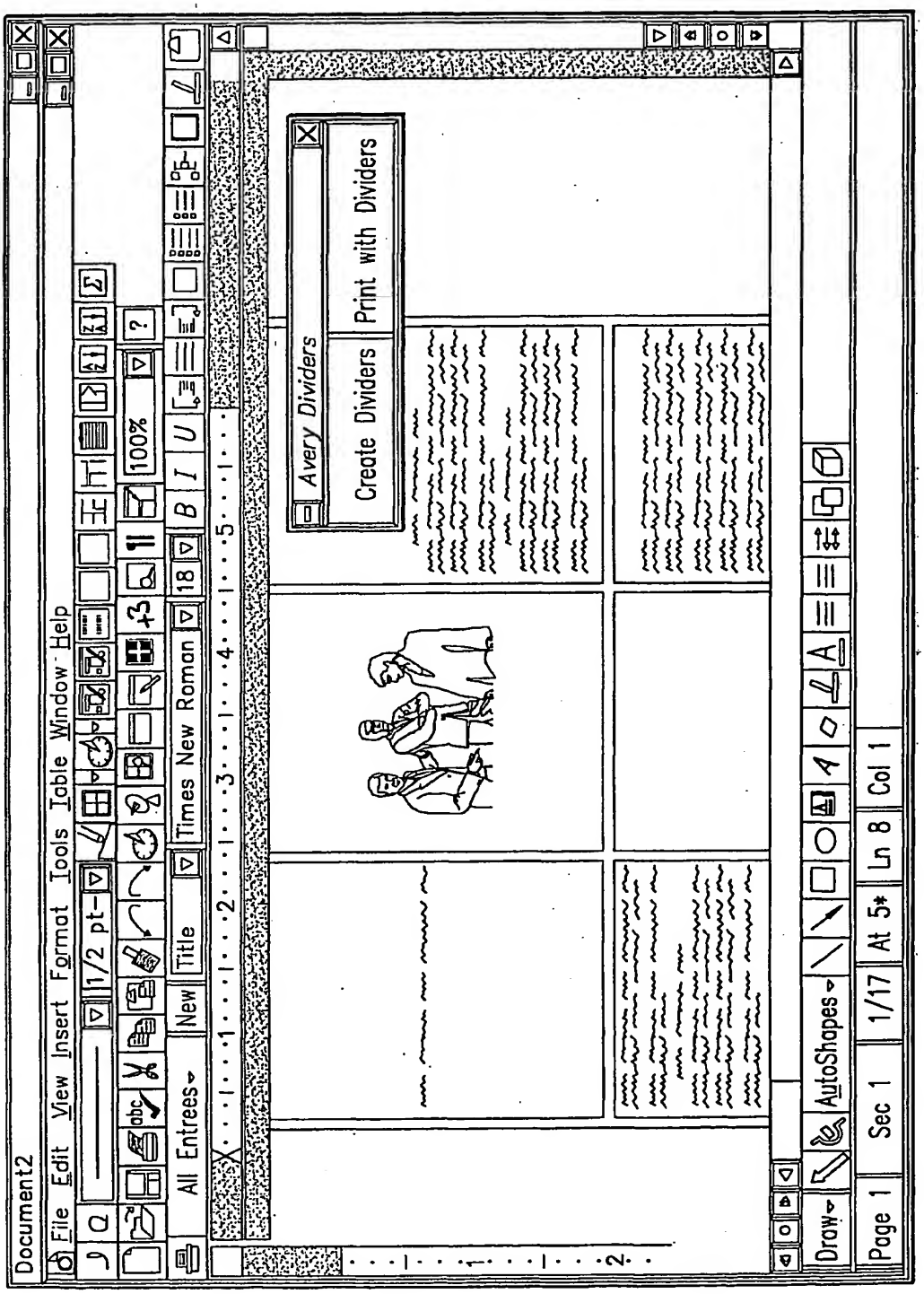

286
Safety Procedures.doc
File Edit View Insert Format Tools Table Window Help
All Entrees
New
Normal
Arial
10
100%
have smoke alarms and automatic sprinkler system, they are not in compliance with the
law and the potential risk for injury increases. The United States Fire Association
compiles, maintains an
in compliance with the
United States Fire Adr
Dividers Wizard
Beginning with your first divider:
–Move your cursor to the location in your document where you want to insert each divider.
–Click the number corresponding to the divider to insert the divider at that location.
–Repeat for the next divider.
1 Introduction
2 Background
3 Objectives
4 Results
5 Summary
When you have inserted all your dividers,click Next.
Help
Cancel
<Back
Next>
Avery Dividers
Create Dividers
Print with Dividers
2
Divider N
Selection 2–United Sta
Draw
AutoShapes
Page 2
Sec 1
2/14
At 7.9*
Ln 19
Col 2

FIG. 12


294
Document2
File Edit View Insert Format Tools Table Window Help
All Entrees
New
Title
Times New Roman
18
100%
Avery Dividers
Create Dividers
Print with Dividers
Draw
AutoShapes
Page 1
Sec 1
1/17
At 5*
Ln 8
Col 1

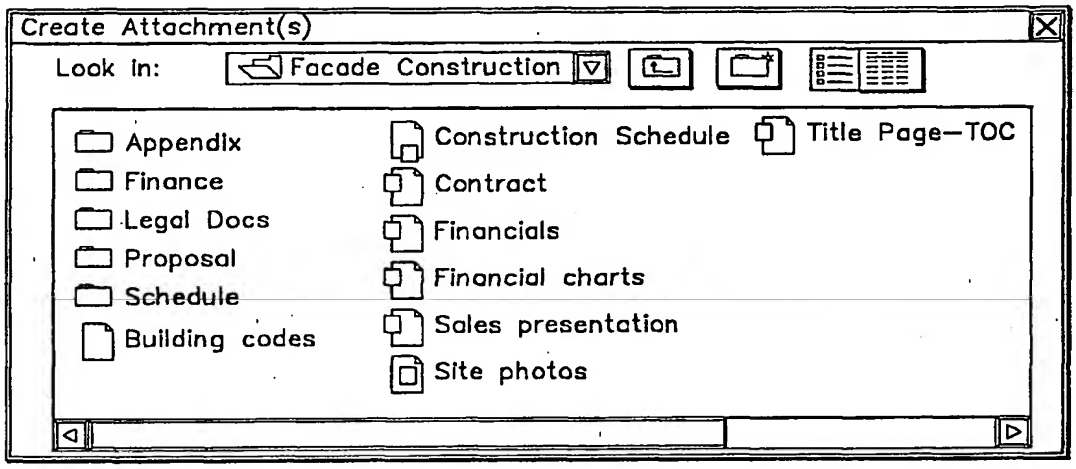



FIG. 13

298

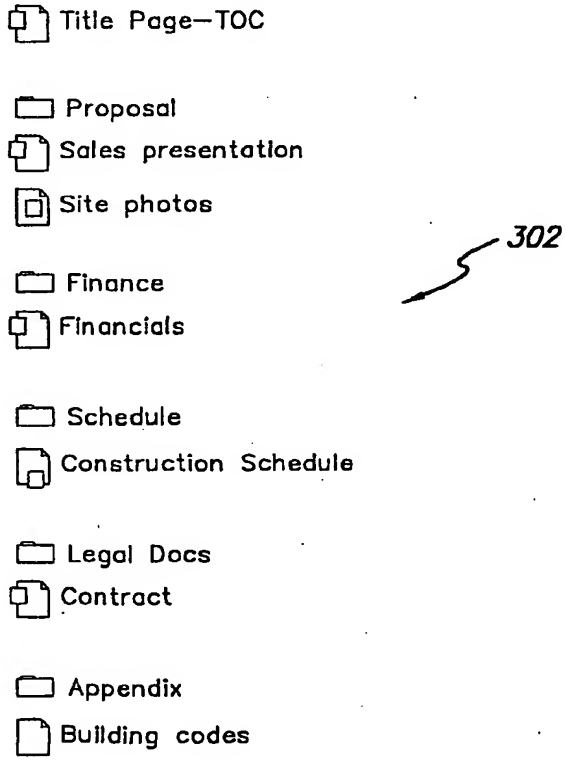



FIG. 14

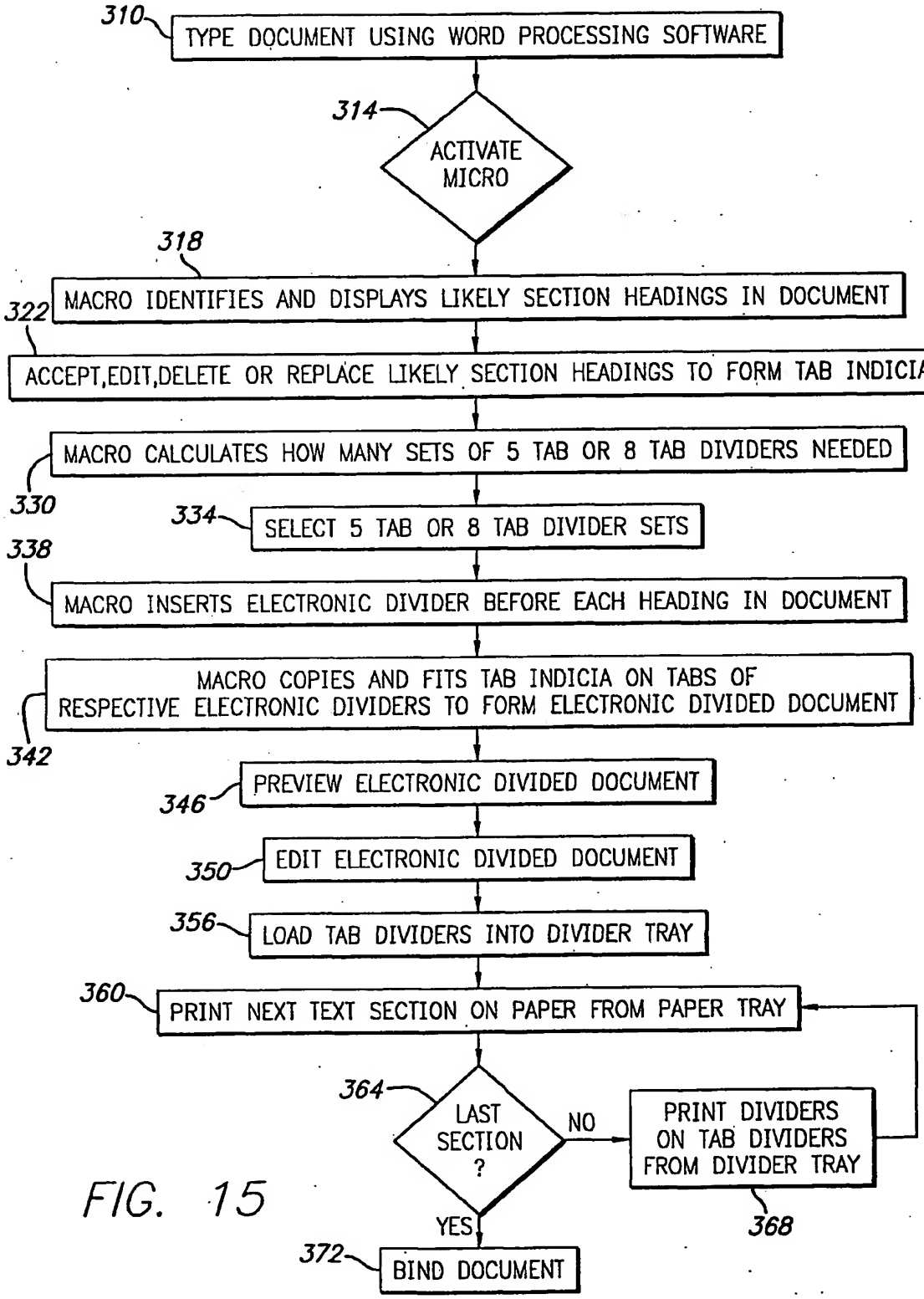

310
TYPE DOCUMENT USING WORD PROCESSING SOFTWARE
314
ACTIVATE MICRO
318
MACRO IDENTIFIES AND DISPLAYS LIKELY SECTION HEADINGS IN DOCUMENT
322
ACCEPT,EDIT,DELETE OR REPLACE LIKELY SECTION HEADINGS TO FORM TAB INDICIA
MACRO CALCULATES HOW MANY SETS OF 5 TAB OR 8 TAB DIVIDERS NEEDED
330
334
SELECT 5 TAB OR 8 TAB DIVIDER SETS
338
MACRO INSERTS ELECTRONIC DIVIDER BEFORE EACH HEADING IN DOCUMENT
MACRO COPIES AND FITS TAB INDICIA ON TABS OF RESPECTIVE ELECTRONIC DIVIDERS TO FORM ELECTRONIC DIVIDED DOCUMENT
342
346
PREVIEW ELECTRONIC DIVIDED DOCUMENT
350
EDIT ELECTRONIC DIVIDED DOCUMENT
356
LOAD TAB DIVIDERS INTO DIVIDER TRAY
360
PRINT NEXT TEXT SECTION ON PAPER FROM PAPER TRAY
364
LAST SECTION ?
NO
PRINT DIVIDERS ON TAB DIVIDERS FROM DIVIDER TRAY
368
YES
372
BIND DOCUMENT

FIG. 15

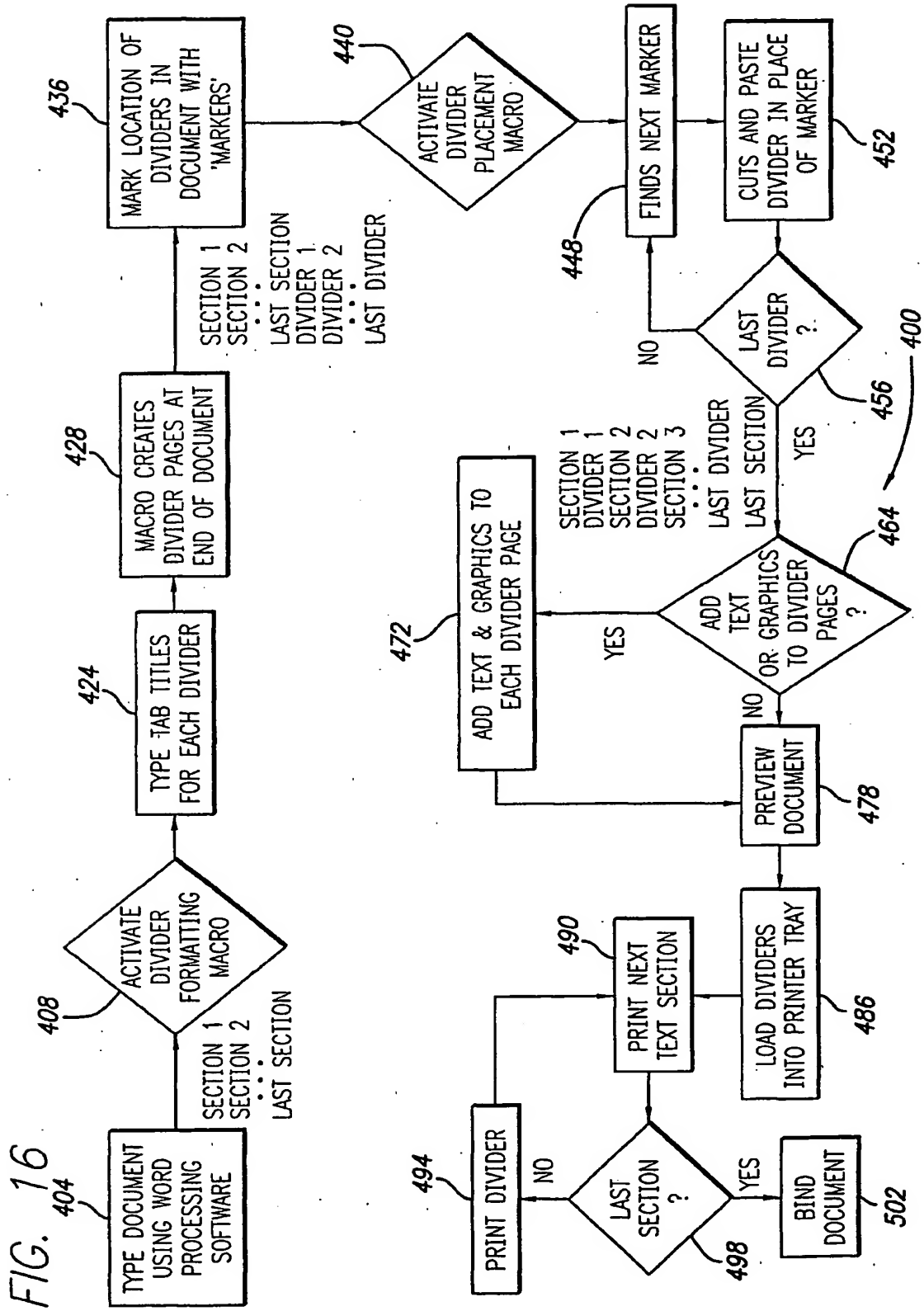
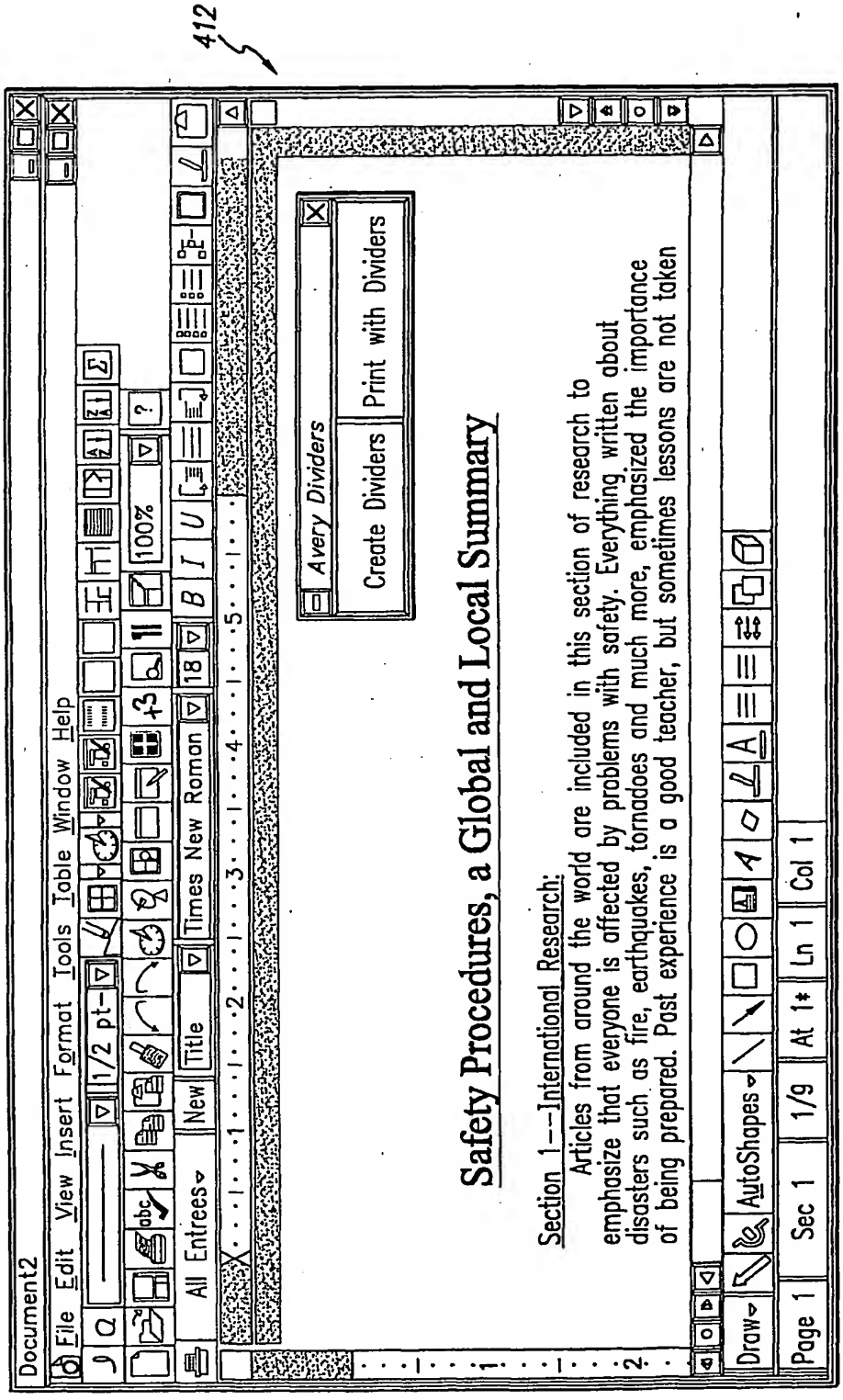

TYPE DOCUMENT USING WORD PROCESSING SOFTWARE
404
ACTIVATE DIVIDER FORMATTING MACRO
408
SECTION 1
SECTION 2
LAST SECTION
TYPE TAB TITLES FOR EACH DIVIDER
424
MACRO CREATES DIVIDER PAGES AT END OF DOCUMENT
428
SECTION 1
SECTION 2
LAST SECTION
DIVIDER 1
DIVIDER 2
LAST DIVIDER
MARK LOCATION OF DIVIDERS IN DOCUMENT WITH 'MARKERS'
436
ACTIVATE DIVIDER PLACEMENT MACRO
440
FINDS NEXT MARKER
448
CUTS AND PASTE DIVIDER IN PLACE OF MARKER
452
LAST DIVIDER ?
456
NO
YES
400
SECTION 1
DIVIDER 1
SECTION 2
DIVIDER 2
SECTION 3
LAST DIVIDER
LAST SECTION
ADD TEXT OR GRAPHICS TO DIVIDER PAGES ?
464
YES
ADD TEXT & GRAPHICS TO EACH DIVIDER PAGE
472
NO
PREVIEW DOCUMENT
478
LOAD DIVIDERS INTO PRINTER TRAY
486
PRINT NEXT TEXT SECTION
490
LAST SECTION ?
498
YES
NO
PRINT DIVIDER
494
BIND DOCUMENT
502

FIG. 16

FIG. 17


412
Document2
File Edit View Insert Format Tools Table Window Help
All Entrees
New
Title
Times New Roman
18
100%
Avery Dividers
Create Dividers
Print with Dividers
Safety Procedures, a Global and Local Summary
Section 1--International Research:
Articles from around the world are included in this section of research to emphasize that everyone is affected by problems with safety. Everything written about disasters such as fire, earthquakes, tornadoes and much more, emphasized the importance of being prepared. Past experience is a good teacher, but sometimes lessons are not taken
Draw
AutoShapes
Page 1
Sec 1
1/9
At 1"
Ln 1
Col 1

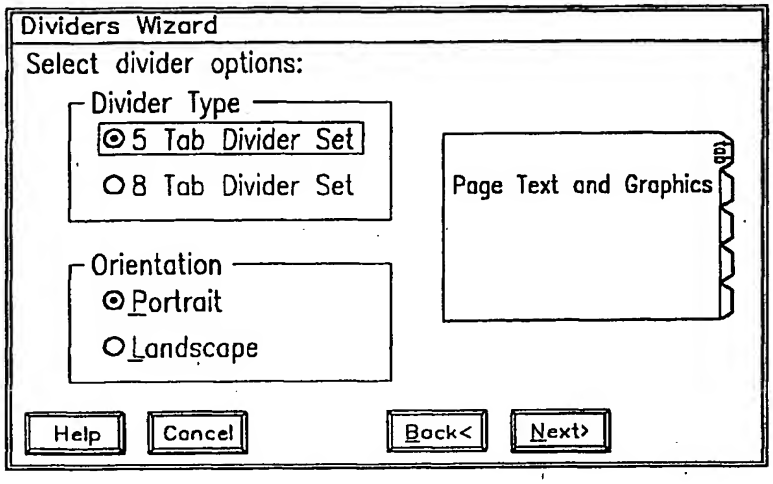

Dividers Wizard
Select divider options:
Divider Type
5 Tab Divider Set
8 Tab Divider Set
Orientation
Portrait
Landscape
Page Text and Graphics
Help
Cancel
Back<
Next>
416

FIG. 18

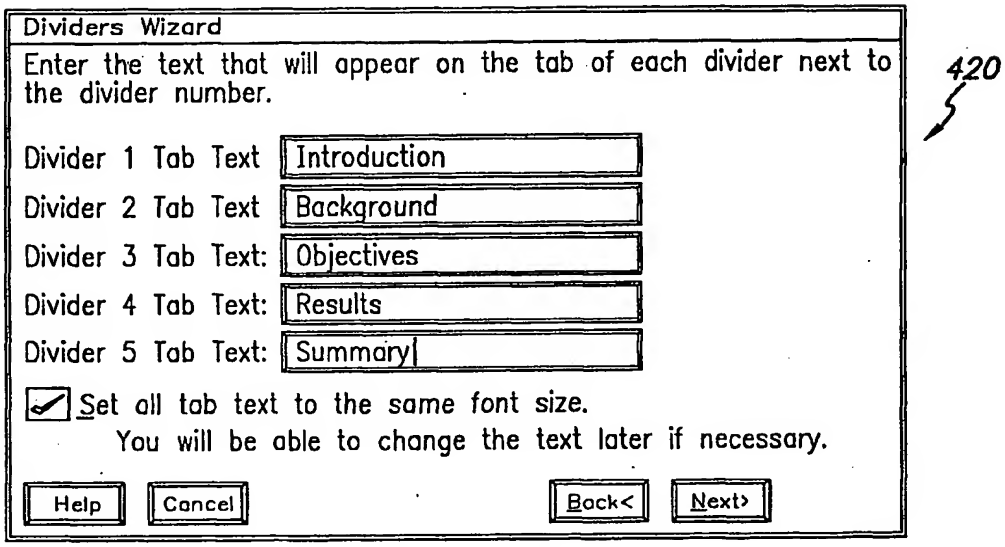

Dividers Wizard
Enter the text that will appear on the tab of each divider next to the divider number.
Divider 1 Tab Text
Introduction
Divider 2 Tab Text
Background
Divider 3 Tab Text:
Objectives
Divider 4 Tab Text:
Results
Divider 5 Tab Text:
Summary
Set all tab text to the same font size.
You will be able to change the text later if necessary.
Help
Cancel
Back<
Next>
420

FIG. 19

FIG. 20

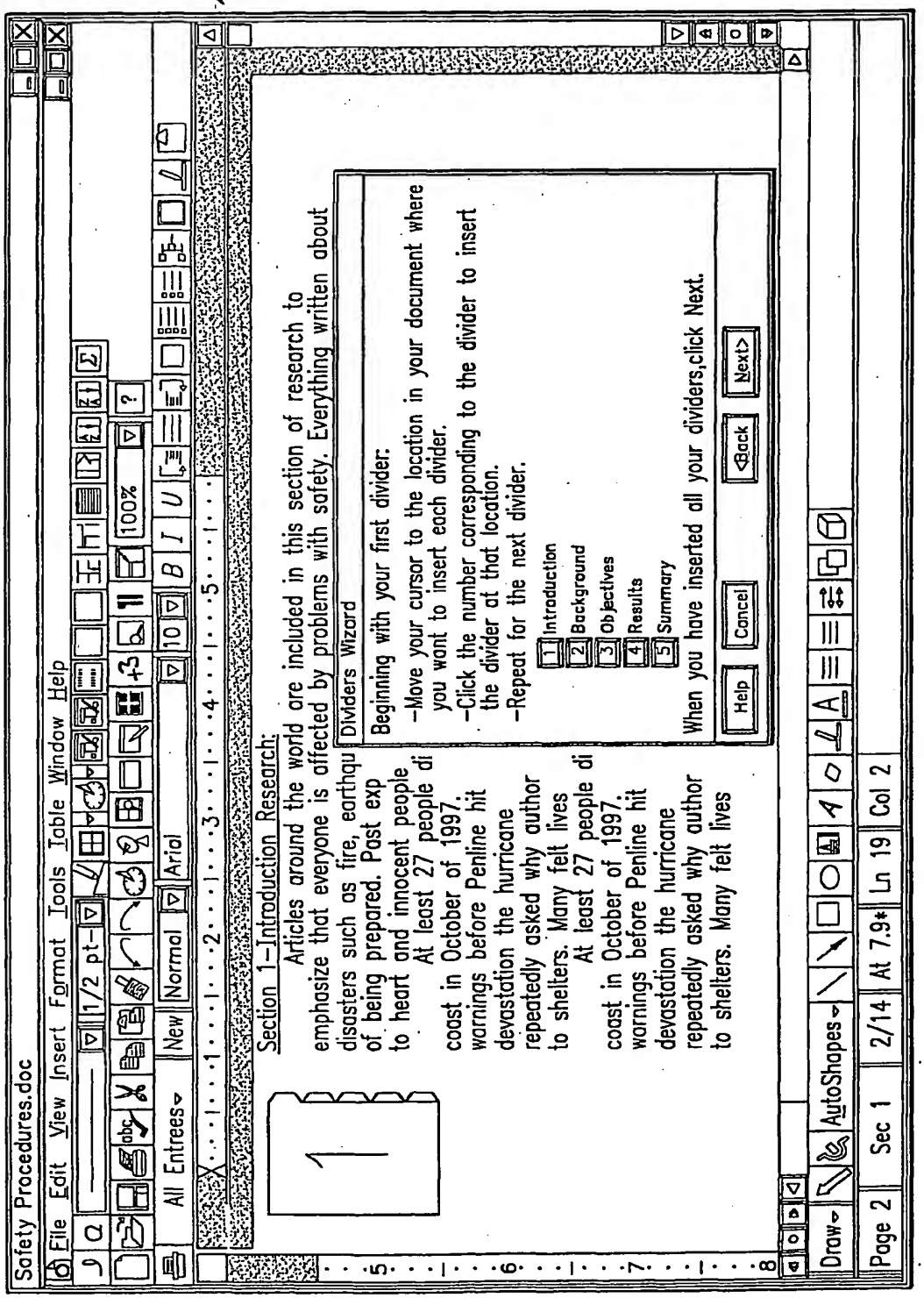
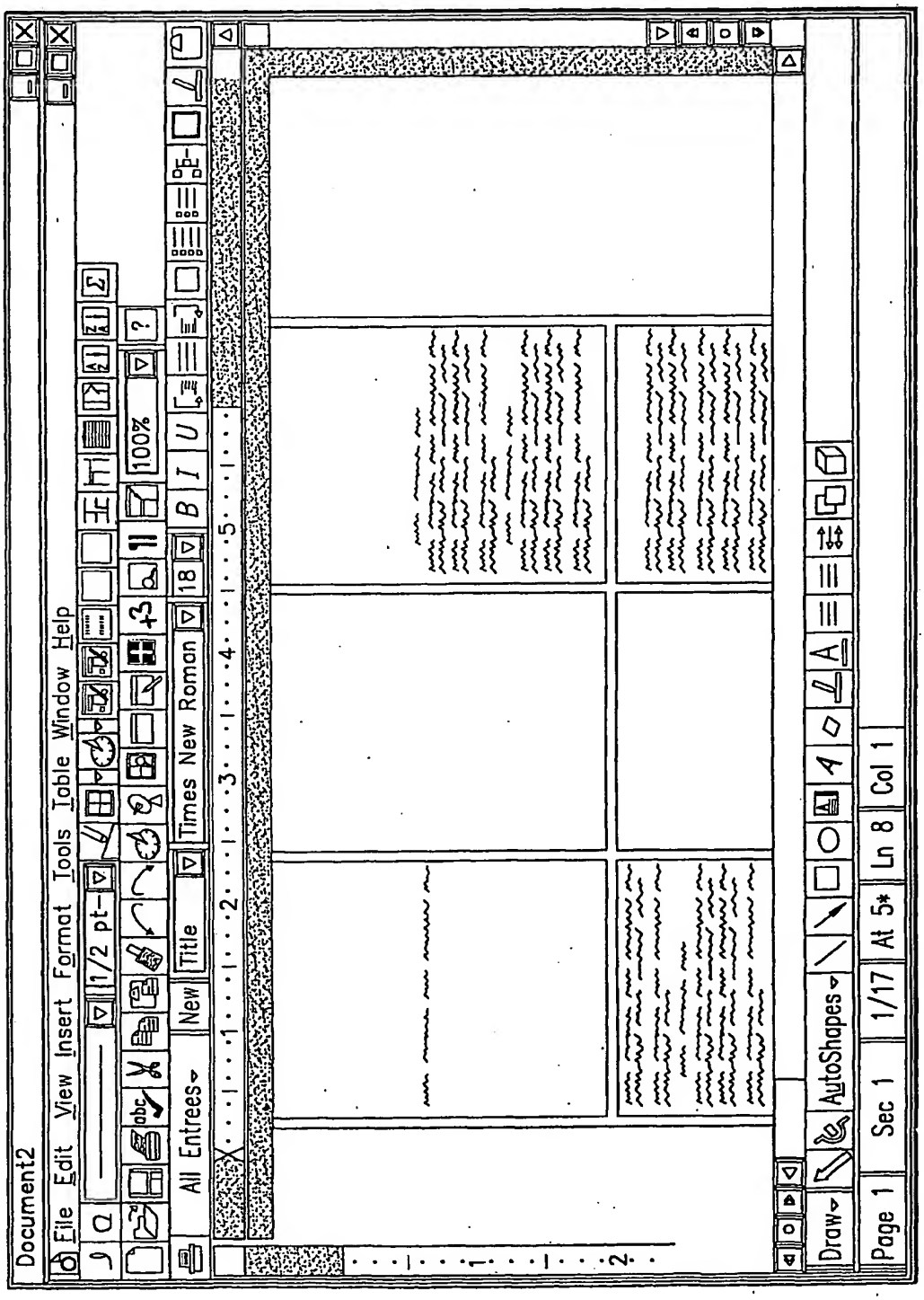

432
Safety Procedures.doc
File Edit View Insert Format Tools Table Window Help
Section 1–Introduction Research:
Articles around the world are included in this section of research to emphasize that everyone is affected by problems with safety. Everything written about disasters such as fire, earthqu of being prepared. Past exp to heart and innocent people
At least 27 people di coast in October of 1997. warnings before Penline hit devastation the hurricane repeatedly asked why author to shelters. Many felt lives
At least 27 people di coast in October of 1997. warnings before Penline hit devastation the hurricane repeatedly asked why author to shelters. Many felt lives
Dividers Wizard
Beginning with your first divider.
–Move your cursor to the location in your document where you want to insert each divider.
–Click the number corresponding to the divider to insert the divider at that location.
–Repeat for the next divider.
1 Introduction
2 Background
3 Objectives
4 Results
5 Summary
When you have inserted all your dividers,click Next.
Help
Cancel
<Back
Next>
Draw
AutoShapes
Page 2
Sec 1
2/14
At 7.9*
Ln 19
Col 2

FIG. 21


444
Document2
File Edit View Insert Format Tools Table Window Help
All Entrees
New
Title
Times New Roman
18
B I U
100%
Draw
AutoShapes
Page 1
Sec 1
1/17
At 5*
Ln 8
Col 1

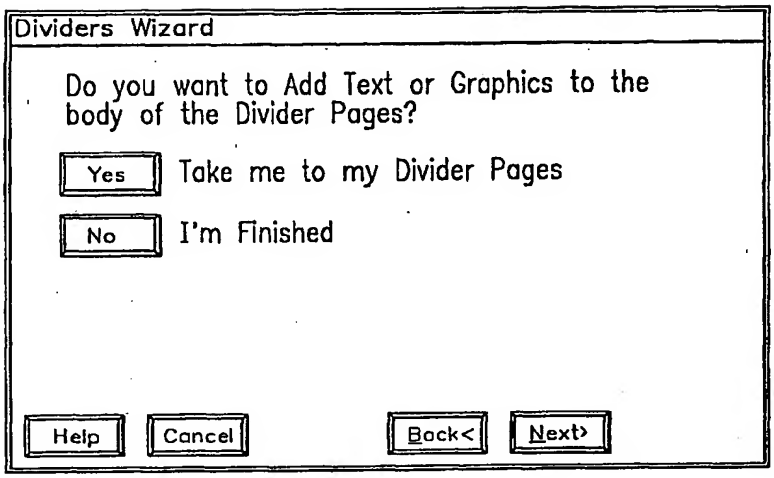

Dividers Wizard
Do you want to Add Text or Graphics to the body of the Divider Pages?
Yes
Take me to my Divider Pages
No
I'm Finished
Help
Cancel
Back<
Next>

FIG. 22

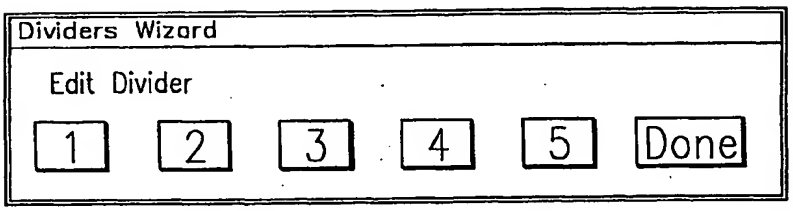
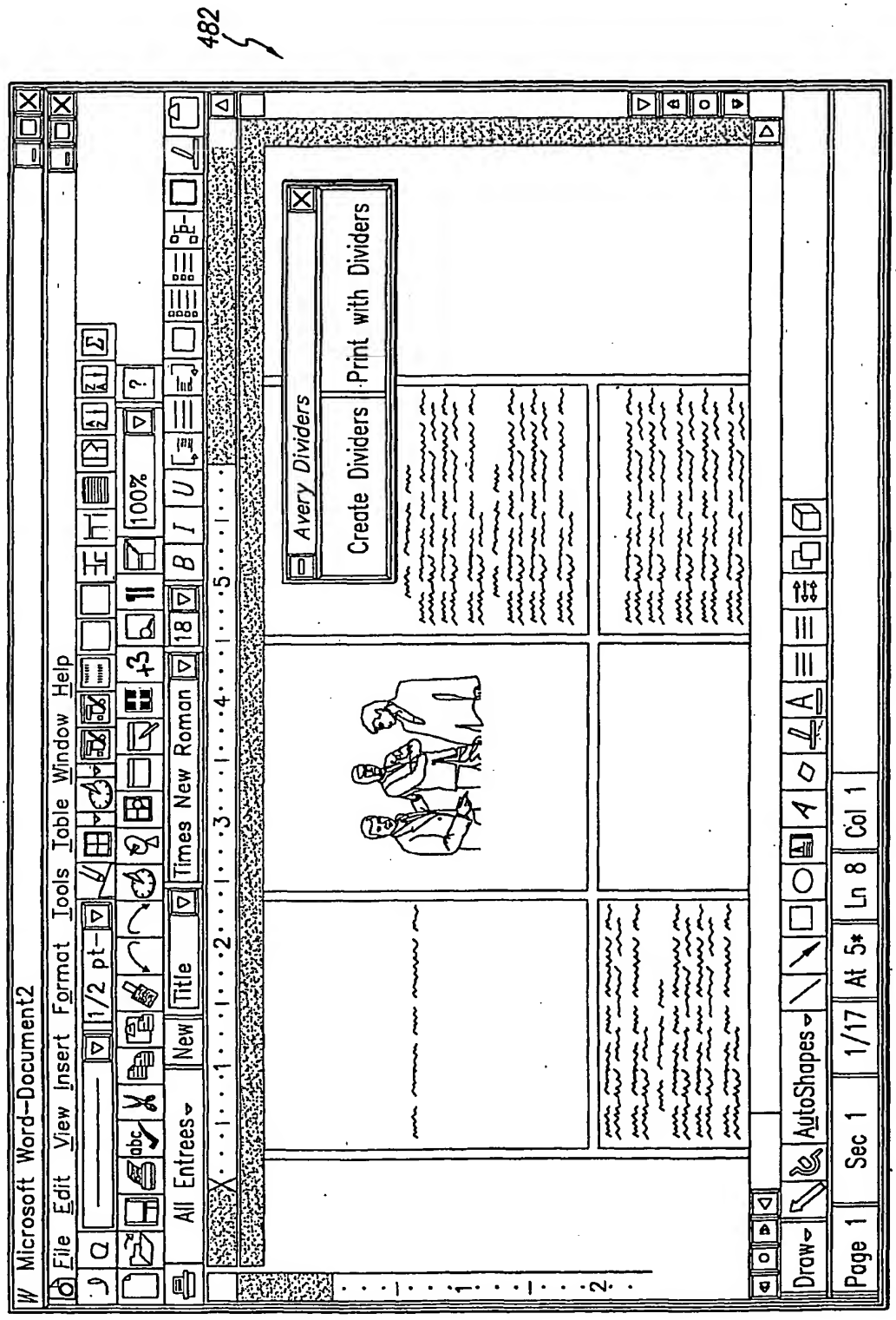

Dividers Wizard
Edit Divider
1
2
3
4
5
Done
465

FIG. 23

FIG. 24


482
Microsoft Word-Document2
File Edit View Insert Format Tools Table Window Help
All Entrees
New
Title
Times New Roman
18
100%
Avery Dividers
Create Dividers
Print with Dividers
Draw
AutoShapes
Page 1
Sec 1
1/17
At 5*
Ln 8
Col 1

INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US01/07050

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) :G06F 3/12

US CL : 707/500, 530, 526, 527; 402/79

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 707/500, 530, 526, 527; 402/79

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WEST USPAT Database
search terms: print, tab, divider, collating

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| A | US 5,909,979 A (WINZEN) 08 June 1999, all. | 1-118 |
| A | US 5,401,058 A (HOLMBERG) 28 March 1995, all. | 1-118 |
| A | US 4,819,021 A (DOERY) 04 April 1989, all. | 1-118 |
| A | US 5,596,389 A (DUMAS et al) 21 January 1997, all. | 1-118 |
| A | US 4,974,035 A (RABB et al) 27 November 1990, all. | 1-118 |

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

| | | | |
|---|---|---|---|
| * | Special categories of cited documents: | "T" | later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention |
| "A" | document defining the general state of the art which is not considered to be of particular relevance | "X" | document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone |
| "B" | earlier document published on or after the international filing date | "Y" | document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art |
| "L" | document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) | "&" | document member of the same patent family |
| "O" | document referring to an oral disclosure, use, exhibition or other means | | |
| "P" | document published prior to the international filing date but later than the priority date claimed | | |

| | |
|---|---|
| Date of the actual completion of the international search<br>10 MAY 2001 | Date of mailing of the international search report<br>01 JUN 2001 |
| Name and mailing address of the ISA/US<br>Commissioner of Patents and Trademarks<br>Box PCT<br>Washington, D.C. 20231<br>Facsimile No. (703) 305-3230 | Authorized officer<br>STEPHEN HONG<br>Telephone No. (703) 305-3900 |

Form PCT/ISA/210 (second sheet) (July 1998) ★